




REPORTS
ON THE
HEALTH AND SANITARY
CIRCUMSTANCES
OF THE
County Borough of Northampton
FOR THE YEARS 1920 & 1921.

By J. DOIG McCRINDLE,

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REPORT

On the HEALTH AND SANITARY CIRCUMSTANCES

of the

COUNTY BOROUGH OF NORTHAMPTON, FOR THE YEAR 1920,

*To the Mayor, Aldermen, and Councillors of the County Borough
of Northampton.*

MR. MAYOR, MRS. SCOTT, AND GENTLEMEN,

The Report herewith presented for your consideration deals with the statistical year 1920, the period of fifty-two weeks ended 1st January, 1921.

The delay in issuing it is due partly to the fact that within the last two and a half years reports already have been presented covering a period of five years. During the war no printed reports were issued and this omission has had to be made good since peace supervened at the cost of more time than could well be spared from routine and special duties. Further, much of the spare time otherwise available for these reports has been occupied with extra duties in connection with the treatment at the Borough Hospital, during a period of twelve months, of tuberculous ex-service men sent to us from Staffordshire. Most of the matters referred to in the text have already been before the Public Health and Maternity and Child Welfare Committees at their monthly meetings and so have not escaped attention because of the delay.

It may be noted that some alteration has taken place in the form and arrangement of the Report. This is due to the gradual approximation of this arrangement to that suggested by the Ministry of Health, with a view to obtaining uniformity in these documents all over the country in order to facilitate comparison and obtain completeness.

In spite of the still somewhat abnormal conditions there is little in the statistics indicating circumstances calling for special comment. Unfortunately the difficulty in obtaining a reliable estimate of the population robs much of the statistical matter of that accuracy upon which its value depends. The lack of a more frequent census has long been one of the causes of this and the intervention of the European War has accentuated the uncertainty during this last intercensal period. While admitting this inaccuracy there is still some satisfaction to be felt with most of the statistical figures. The increased birth-rate, accompanied by a low death-rate and especially by a low infant mortality, is encouraging and so is the fall in the mortality from all forms of tuberculosis. The absence of any disease in epidemic form is gratifying especially after the recent experience in the case of influenza.

The subject which perhaps received more attention than any other during the year was infant welfare and this culminated at the end of the year in the appointment of an Assistant Medical Officer specially for this work. The anti-tuberculosis measures were continued although the work was by no means lessened by the effects of the war and in this connection, as stated above, the work was considerably increased by undertaking the treatment of the disease in ex-service men sent from Staffordshire.

As mentioned in last year's Report much of the effect of our efforts was neutralised by the abnormal shortage of housing accommodation. On the other hand the return of the permanent members of the Staff from war duty has added to the efficiency of the Department.

I have again to acknowledge the consideration shown by all with whom I am officially brought in contact.

I am,

Your obedient Servant,

J. DOIG McCRINDLE.

PUBLIC HEALTH DEPARTMENT,

GUILDHALL, NORTHAMPTON,

SEPTEMBER, 1921.

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CHIEF FIGURES, 1920.

ESTIMATED POPULATION (from Registrar General)
AT MID-YEAR, 1920—

TOTAL (for Birth-rate)	...	...	...	...	...	92,950
CIVILIAN (for Death-rate)	...	...	...	...	...	92,488
BIRTH-RATE ...	...	...	...	...	...	24·2
DEATH-RATE...	...	...	...	...	...	11·3
INFANT MORTALITY	...	...	...	...	...	73·8
“ ZYMOTIC DEATH-RATE ”	...	...	...	...	...	0·48
DEATH-RATE FROM PULMONARY TUBERCULOSIS	...	...	...	...	...	1·06
DEATH-RATE FROM OTHER TUBERCULOSIS DISEASES	...	...	...	...	...	0·13
TOTAL DEATH-RATE FROM TUBERCULOSIS	...	...	...	...	...	1·19

	MALES.		FEMALES.		TOTAL.
BIRTHS	1201	...	1047	...	2248
DEATHS	574	...	473	...	1047

AREA OF BOROUGH (in acres)	...	...	...	...	...	3,469
INHABITED HOUSES (October, 1920)	...	...	...	...	...	20,520
DENSITY OF POPULATION (Estimated Middle 1920):—						
	26·7 Persons per Acre.					
	4·5 Persons per House.					
RATEABLE VALUE (end of 1920)...	...	...	...	...	...	£429,574

I.—NATURAL AND SOCIAL CONDITIONS.

Population

The population of Northampton at the last enumeration (1911) was found to be 90,064. Since then the yearly numbers can be estimated only, and in the absence of any local peculiarity of circumstance the estimate of the Registrar General is usually as accurate as any other, at least in peace time, and is generally accepted for a given locality. Consequent on the late war, however, migrations of local populations have so seriously affected the accuracy of this estimate as to make it a very doubtful one, though it is still accepted for want of a better. The Registrar General's figure for the total population in 1920 is 92,950, which includes the resident civil population and those Northampton men still absent on military service.

Physical Features and General Character

Northampton is a fairly compact town covering approximately 3,500 acres and is situated in the midst of rural districts. It lies within a sharp bend of the River Nene which, with its tributaries, surrounds it on all sides excepting the north-east. The average height above sea level is about 200 to 300 feet.

It lies on a basement rock of Upper Lias clay on the top of which, for the larger part of the area, lies the Northampton sand and above this the Upper Estuarine beds and the Great Oolite limestone. This arrangement allows of the easy access to water and there are many springs in the town and neighbourhood.

Social Conditions

The chief industry is that connected with boot and shoe making and there are a few tanneries. These industries absorb the energies of by far the greater number of the working inhabitants. Generally speaking, they are not unhealthy occupations although more sedentary in their nature than the average. Owing, however, to the pressure of modern competition, great changes have taken place in the industry within recent years and there has been an all round "speeding up" which readily finds and emphasises the weak spots in the general physical well-being. Although female labour is included to quite a large extent, this is mostly amongst the young and unmarried, and married women's labour, at least previous to the war, was not a very important feature.

There is undoubtedly a good deal of dust in connection with the various processes, but it is not in itself a dangerous dust and merely forms a handy vehicle for microbic infections.

Vital Statistics

BIRTHS AND BIRTH-RATE. During the year, 2,248 births were registered. 1,201 were those of males and 1,047 those of females. The birth-rate, therefore, which is calculated naturally on the total population, civil and military, is 24·2 per thousand. The figure is the highest recorded since 1903. This feature in the history of the birth-rate is shared by Northampton

with the country in general and most, if not all, of the great towns. One cannot help believing that it is in some way connected with the reaction following the Great War.

It is of interest to learn, as may be seen from the information contained in the section on infant mortality, that this increase in the birth-rate has not been accompanied by an increase in the death-rate of children under one year of age. Previously a high birth-rate was supposed to be invariably accompanied and compensated for by a more or less correspondingly greater infant mortality. Table 2 in the Appendix gives, as in previous years, the birth-rates of Northampton and of the whole country for comparison.

There were 88 illegitimate births registered, a proportion of 3.91 per cent. of the total. An examination of this latter proportion each year since 1905 shows that it has been steadily rising, with minor recessions, and in 1918 had reached a point well over twice the rate in 1905. A chart drawn to represent the state of affairs in regard to this illegitimacy is very graphic and undoubtedly indicates this, in my opinion, abnormal increase.

DEATHS AND DEATH-RATE. During 1920 there were 1,047 deaths registered, comprising 574 males and 473 females. The death-rate, which is based on the civil population alone, is 11.3. The Registrar General excludes from the civilian statistics the deaths occurring in the Forces.

Table 3 shows for comparison the local and general death-rates in each year of the ten 1911-1920, and from this will be observed the fall in the Northampton death-rate subsequent to the war. This was commented on in the Report for 1919 and it will be seen that the marked fall in that year is continued in an almost equally emphatic fashion during the present year.

The proportion of cases in which it was considered necessary to hold an inquest or in which no medical certificate was forthcoming again varies hardly at all from the average. The numbers were "inquests" 46, "uncertified" 9, or a percentage of 5.25 of the total number of deaths.

OTHER STATISTICS. The vital statistics relating to infancy and to the various diseases causing death will be found under the respective headings in the text or in the appended tables.

In general, throughout the war the people in Northampton were in a fairly prosperous condition and the amount of poor law relief was much reduced. Since the war this relief has been gradually increasing in amount and the figures rose during 1920 from 1,175 persons relieved in the last week of March to 1,426 at the end of the year, the greatest increase being in out-relief.

Poor Law
Relief

Hospital
and other
forms of
Gratuitous
Medical
Relief

In regard to the extent to which hospital and other forms of gratuitous medical relief are utilised, I must say that owing to the custom of the general practitioners contracting with individuals and families for medical services, these gratuitous forms are probably made less use of than in many other towns.

Other
Features.

One feature of the social conditions which must not be overlooked is the overcrowding of households owing to the scarcity of houses, particularly since the return of the troops. As will be apparent in the section dealing with maternity and child welfare, where the subject is treated in some detail, this overcrowding is rather one of households than of individuals.

II.—SANITARY CIRCUMSTANCES.

Water
Supply

In the present circumstances, when brevity is of importance as tending to economy, it is unnecessary to refer again to the sources of supply in detail. In the report for 1914 and in several previous reports this was done. It remains to state that the extension of the work in connection with the additional sources in Hollowell Valley is still proceeding, unfortunately somewhat slowly, and anxiety remains in regard to the sufficiency at present.

Up to the end of May, four samples of the water were examined at the Laboratories of Pathology and Public Health (bacterioscopic analysis) and by the Public Analyst (chemical analysis). Two of these were taken at the source—the Reservoir and the Deep Well—and the other two at a point of delivery in the town. With the exception of the one at the Deep Well they were of the mixed supply and in character did not differ materially from the average.

I pointed out in my last Report the unsatisfactory nature of the information obtained from such casual samples and advocated the appointment of a local bacteriologist, whose knowledge would embrace the circumstances in which the water was produced and in which the sample was taken. I am glad to be able to state that such a local bacteriologist has now been appointed and that he began to examine the water and its local circumstances in the later months of the year.

Northampton water as it reaches the consumer is usually a mixture of constituent supplies from sources of a vastly different character, and the results of analysis will vary according to the relative proportion of each constituent present in the particular sample examined. A thorough knowledge of the character of each constituent is as essential as that of the varying mixture. The purity of any water supply is finally judged by its effect on the health of the people who drink it. Whatever be the results of its analysis the Northampton water has apparently no serious effects, as for years the town has been almost free from the

usual water-borne diseases. Bearing this in mind, it is necessary to know the normal content of this water under varying circumstances and on this to construct a standard, departure from which would indicate possible danger. Such knowledge as is indicated above can only be acquired satisfactorily by a local bacteriologist taking his own samples over a considerable period.

Ten further reports were received in this way relating to thirty-one samples taken by himself from the Pure Water Tank at Ravensthorpe, the Inflow from the Reservoir to the Filter Beds and from the Reservoir itself. These samples were taken in order to inform the bacteriologist as to the nature of the water, filtered and unfiltered, in varying conditions rather than to report on the purity of the supply. Generally speaking, there has been no indication of any immediately serious impurity likely to effect the health of the inhabitants.

Unlike many other manufacturing towns the trade processes in Northampton do not to a material extent pollute any adjacent streams, though probably some contamination is received from the tanneries. The river water is quite usable, therefore, for extra-domestic services, and is thus employed for street watering. Rivers and Streams

There is a considerable proportion of older buildings in the town in which the drainage is defective and this receives attention as it comes to our notice year by year. The sewers, however, in many parts of the town are inefficient, being too large to permit of the flow necessary for cleansing purposes and complaints of the escape of sewer gas into the atmosphere are very frequent, particularly in the higher parts of the town. I believe that little short of entire reconstruction of many of our sewers will materially alter this. Drainage and Sewerage

The closets in the town, with almost no exception, are water closets, but in the older property they are not connected with a water supply and require to be flushed by hand. This is extremely objectionable as it puts a premium on uncleanness and is probably due to the insufficient water supply. The Building Bye-laws require all new houses, however, and the Factory Acts all houses used as workshops, to have closets properly supplied with flushing water and the older form is slowly disappearing. While most of the houses have their own water closet, there are in some of the poorer districts groups of houses where such is used in common. There is hardly a single privy left within the borough boundary. Closet Accommodation

The character and efficiency of the arrangements for the removal and disposal of house refuse leave much to be desired. The refuse collection has been the cause of numerous and persistent complaints. The refuse is put out into the streets in recep- Scavenging

tacles of apparently any character and is collected two or three times a week in uncovered carts. The conditions on a windy day may be easily imagined, particularly as it is often well on in the afternoon before the dust carts visit certain streets. Various efforts have been made to improve the conditions, but there is little evidence of their success.

A portion of the refuse is burnt in a destructor of the Heenan and Froude type, fitted with forced draught. The steam raised was used until quite recently at the Tramway Power Station. Although complaints in regard to this destructor, which is situated within one of the most populous districts, have not frequently reached the Department, I believe many such exist. On the outskirts of the town the refuse is disposed of in "dumps." This system of collection and disposal needs radical alteration as soon as financial circumstances will permit.

Sanitary Inspection

Reference here should be made to Tables 4, 5, and 6 in the Appendix, which show a summary of the sanitary work carried out during the year, with some of the results of action taken. They also indicate, separately, the drains examined and those reconstructed. During the year, 73 smoke tests were applied to drainage systems and in 60 instances the drains were found in this way to be defective.

House-to- House Inspection

In regard to house-to-house inspection, during the greater part of the year this did not receive the attention it did before the outbreak of war. Although the Staff had returned the difficulty of getting work done, except in connection with serious nuisances, still remained and this discouraged the attempt to do much in this direction. Towards the end of the year, however, owing to the necessity for dealing with the housing problem a systematic inspection of houses in the poorer districts was begun. This will be referred to at greater length in the section dealing with housing. The total number of houses inspected during the year was 486.

Common Lodging Houses

Amongst the premises controlled by Bye-laws there are five registered lodging houses and the work of inspection is deputed to the Senior District Inspector, who reports that these were conducted in a fairly satisfactory manner and were cleansed and whitewashed in accordance with the Bye-laws. The population of these houses, which was very scant during the war, is again increasing.

Canal Boats

These are supervised by one of the District Inspectors, who reports in January of each year as required by the Act. The number of boats passing through the town is a comparatively small one and the Inspector states that the Regulations were properly carried out throughout the year. There were only seven boats on the register at the end of the year and known to be in use and no registration or re-registration took place during the period.

On the register of offensive trades there are the names of six tanners, three tripe boilers, and one rabbit skin dresser. The premises where these trades are carried on have been inspected regularly and no reasonable objection has been raised to the methods employed.

The premises controlled by Bye-laws or Regulations such as cowsheds, milkshops, bakehouses, and slaughterhouses will be found in the section dealing with food.

There are twenty-three public elementary schools, one of which is specially set apart for mental defectives. During the war and since as little as possible in the way of painting, white-washing, or repairing has been carried out and much of this is required at the earliest possible date. Schools are supplied by the town's water and their sanitary arrangements are on the water-borne system.

During the year there was very little evidence of the spread of serious disease through the agency of the schools and no school closure was necessary on this account. Reports are sent regularly each week by the hands of school departments to the Medical Officer of Health containing records of households attended by school children in which infectious disease is suspected.

The School Medical Officer, Dr. Grahame H. Skinner, is the Deputy and Assistant Medical Officer of Health and the Medical Officer of Health acts as the Supervising Officer of the School Medical Service. In this way the necessary co-ordination between the Public Health Department and the School Medical Department is obtained.

Besides the inspection in the Schools a School Clinic has been set up, staffed by the School Medical Officer and an Assistant Medical Officer, a qualified Dental Surgeon, three nurses, and the necessary clerical assistants. The details of the work are set out in the report of the School Medical Officer presented recently to the Education Committee.

III.—FOOD.

By far the greater part of the milk consumed in the town is sent in in carts from the immediately surrounding districts. There are a few cowsheds within the Borough and very little comes from a distance by train. On the whole, the supply is not only adequate but wholesome. There are well over two hundred retail milk distributors in the town, but each on the average deals only with a few pints of milk daily. Otherwise the bulk of the milk distribution is in the hands of half a dozen large firms.

Dairies,
Cowsheds,
and
Milkshops

The details of the administration of the Dairies, Cowsheds, and Milkshops Orders are in the hands of the Inspectors and the requirements are well carried out in general.

The names of 261 milksellers and 33 cowkeepers were on the register at the end of 1920. The Inspectors' visits numbered 248 and defects were reported and remedied in 10 instances.

Milk and
Cream
Regula-
tions, 1912
and 1917

What follows represents the work done under these Regulations, set out in the form required by the Ministry of Health—

1.—Milk ; and Cream not sold as Preserved Cream.

	Number of Samples ex- amined for the presence of a Preservative.	Number in which Preservative was reported to be present, and percentage of Preservative found in each Sample.
Milk ...	117	nil.
Cream	11	3*

*The samples contained 0·37 per cent., 0·08 per cent., and 0·37 per cent. respectively of boric acid. No action was taken under the Regulations as the samples were informal ones.

2.—Cream sold as Preserved Cream.

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct.

(i) Correct statements made.....	5
(ii) Statements incorrect	0
Total	5

(iii) Percentage of Preservative found in each Sample.	Percentage stated on Statutory label.
0·11 per cent.	In each case
0·11 per cent.	labelled not
0·25 per cent.	to contain
nil.	more than 0·4
nil.	per cent.

(b) Determinations made of milk-fat in cream sold as preserved cream.

(i) Above 35 per cent.	5
(ii) Below 35 per cent.	0
Total	5

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V. (1) and the proviso in Article V. (2) of the Regulations have not been observed.....Nil.

(d) Particulars of each case in which the Regulations have not been complied with, and action taken.....Nil.

3.—*Thickening Substances.*

Any evidence of their addition to cream or to preserved cream. Action taken where found.....Nil.

4.—*Other Observations, if any.*

Nil.

The information in reference to the Order will be found in the section dealing with maternity and child welfare.

Milk
(Mothers
and
Children)
Order, 1919

One of the Inspectors devotes practically his whole time to the duties of food inspection, but in addition to this, three others are qualified as meat inspectors and devote at least one half-day in the week to the inspection of slaughterhouses and meat in the course of slaughter, the particular half-day being that on which most of the slaughtering takes place. In this way a fairly efficient supervision is exercised over the meat supply, but as there are 56 private slaughterhouses on the register it is difficult even under these arrangements to make the supervision as efficient as it should be. During 1920, 2,738 visits to slaughterhouses were made in addition to 1,032 visits to other premises where food is manufactured or stored. These figures are exclusive of visits to bakehouses, dairies, cowsheds, etc. The general and cattle markets have also to be looked after regularly so that the work of meat inspection is a somewhat arduous one. So far as the condition of slaughterhouses is concerned the Regulations are carried out satisfactorily in existing circumstances. Most of the slaughterhouses, however, are so situated that even with the greatest care it is impossible to prevent them at times being a serious nuisance. This is due to the fact that all but four are "registered" slaughterhouses, as contrasted with "licensed." It is extremely difficult, therefore, to deal with these and until provision is made for a proper public abattoir and the closure of the existing private premises, the inspection of food will always be a much more difficult matter than it need be.

Meat and
Food
Inspection

The following tabular statement shows the number of carcasses of beef, mutton, and pork dealt with and the number of these found to be tuberculous during the year. As usual, tuberculosis accounted for the chief part of the work in connection with diseased meat and no less than 67.1 per cent. of whole and 69.2 per cent. of part carcasses of beef and pork were found to be affected.

Disease in
Meat

	CARCASSES DEALT WITH.		NUMBER OF THESE FOUND TO BE TUBERCULOUS.	
	WHOLE	PART	WHOLE	PART
Beef ...	104	70	67	39
Mutton	50	8	...	...
Pork ...	33	37	25	35

Action
under
Section
117 of the
Public
Health
Act, 1875

On twenty-four occasions food was dealt with by a magistrate on the application of the Medical Officer of Health or an Inspector, but only in one instance was it deemed necessary by the Public Health Committee to institute a prosecution. This was an occasion when a pig dealer in the county attempted to sell a carcase of pork which an Inspector found deposited by him in a hotel yard ; the magistrates fined him £50 including costs.

Slaughter-
houses

The following is a table constructed in accordance with the suggestions of the Ministry of Health showing the condition of the district in regard to the number of slaughterhouses in use—

	IN JANUARY,		IN DECEMBER,
	IN 1914.	1920.	1920.
Registered	59	54	52
Licensed (Annual)	5	4	4
Total ...	64	58	56

Bakehouses

In addition to the foregoing, at the end of 1920 there were 116 bakehouses on the register. It was the routine duty of each Inspector to visit these premises, where necessary, several times and to report on any insanitary conditions found. In this way 164 visits were made and defects found and remedied on 49 occasions.

Other
Premises
where food
is manu-
factured,
stored, or
exposed
for sale

Visits were regularly paid to premises where sausages, potted meats, sweets, jam, and other foods were made. As a rule little objection was found, but occasionally it was necessary to point out, and sometimes with emphasis, the need for cleanliness and minor alterations in construction.

During the year there were no occasions on which food poisoning was suspected, although once or twice complaints were made. Food Poisoning

In connection with food inspection generally reference should here be made to the Appendix, Tables 7, 8, and 9. Food Inspection Generally

The procedure in reference to the Food and Drugs Acts in no way differed from that of previous years. The number of samples submitted for analysis was 186. It will be noticed that this is an increase on the numbers for the last few years. In the Report for 1919 the reason for this is explained as due to the war conditions and for fuller information reference must be made to that document. Of this number, 26 were found not to be genuine, a percentage of 14·0. 53 of the 186 were taken informally and 8 of these were reported as not genuine. In recent years our energies have been confined largely to the sampling of milk, but as will be seen from Table 10, a considerable number of other foods or drugs was added during the year under consideration. Sale of Food and Drugs Acts

Nearly all the occasions on which a prosecution was ordered were in reference to milk and attention might be called to the following— Prosecutions

In consequence of the complaint of the manager of a large distributing firm on the quality of the milk from one of his sources of supply, two samples (Nos. 33 and 34) were taken in the course of delivery and it was found that they showed the presence of added water to the extent of 37·3 per cent. and 47·3 per cent. respectively. On the expiry of a week a further sample (No. 41) was taken, but this was reported as only showing the presence of added water to the extent of 0·4 per cent. Presumably in the meantime suspicions had been awakened. Although prosecution was instituted in the case of all three samples, the last was withdrawn. The result in the case of the others was the infliction of a penalty of £25 with costs.

The only other prosecution of note was in a sample of dripping (No. 91) which was supplied to one of the municipal institutions in the town. This was found to be adulterated with potato to the extent of 35 per cent. A fine of £1 16s., with £3 17s. 6d. costs, was the result of this.

One other matter must be mentioned where prosecutions were taken and proved unsuccessful. Samples of cream of tartar (Nos. 76 and 77) were taken from shops supplying bakers' sundries and were found on analysis to contain 43 and 53 parts of lead per million. The difficulty in these instances arose as to whether a food or a drug was being dealt with. Prosecution became involved in legal definitions and a loophole resulted through which the defendant firms escaped conviction. The actions were taken on account of the abnormal quantity of lead

present and its prejudicial action on the general health of the community. The purpose of the Department was served, however, in the publicity given and in the assurance readily obtained that the offending article should be withdrawn from sale immediately by the wholesale firms.

IV.—PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES.

Infec-
tious
Diseases
Generally

The old term “ Zymotic Diseases ” is now generally fallen into disuse and although hitherto it has been used in these reports for the purposes of comparison, Tables 11 and 12 in the Appendix are inserted to enable this comparison to be continued, but I no longer use the term in the text of the report.

Most of the communicable diseases are compulsorily notifiable either by Act of Parliament or by Government Departmental Order. Amongst those which are not so notifiable are measles and rubella, whooping cough, varicella, mumps, diarrhœa and enteritis, influenza, and venereal diseases. The last of these is dealt with in a special paragraph below. None of the others can be said to have been prevalent to any extent during the year. Arrangements are made for a weekly report to be forwarded to the Health Department from the Head Teachers of each Public Elementary School containing the list of households sending children to the school in which the presence of any of these diseases is suspected. This, along with the reports of the nurses in the School Medical and Maternity and Child Welfare Sub-departments, as well as the weekly death return of the three district registrars, constitutes the source of information of the prevalence of these communicable diseases. Visits are made in many instances by the Nursing Staff to households thus brought to notice, especially at the beginning of an outbreak in a school, and instructions are given both to parents and teachers for the isolation of the patient and of susceptible contacts attending school.

Measles
and
Whooping
Cough

Tables are inserted showing the numbers of suspected cases of measles and rubella and of whooping cough brought to the knowledge of the Department in this manner.

Influenza

There were nineteen deaths from influenza, nearly all in the former half of the year. The death-rate was 0·20. Seven of them were due to the complication pneumonia or broncho-pneumonia. Certain arrangements have been made ready to be put in force for dealing with a serious outbreak on the lines suggested by the Ministry of Health.

Diarrhœal
Diseases

There were only eleven deaths from diarrhœa and enteritis giving a death-rate of 0·12 per 1,000 living. As these deaths are all amongst children under two years of age the death-rate is now calculated per 1,000 births. This makes the local rate 4·9, well below that of the country which is 8·3. This is again referred to under the section on Maternity and Child Welfare.

The paragraph dealing with smallpox and vaccinia in the Report for 1919 need not be reprinted here and there is little to add except that several times throughout the year I was called upon by medical practitioners to see doubtful cases, none of which were smallpox. On information sent through the agency of the Ministry of Health at different times, eight contacts with cases outside the town were kept under observation for varying periods. Table 16 prepared as in other years from information supplied through the courtesy of the County Medical Officer, Mr. Paget, refers to vaccinia. In Mr. Paget's Report for 1920, opposite page 26, will be found a most interesting and instructive table on this subject which gives comprehensive information of existing conditions in town and county since 1893.

Variola
and
Vaccinia

There were sixty-two cases of scarlatina notified. All seem to have been genuine and occurred amongst the civil population resident in the town. There were no deaths. The usual details will be found in Tables 17 and 18.

Scarlatina

There was only one notification of typhoid fever, a mild case which was treated at the Borough Hospital and recovered. The patient had been less than a fortnight in the town and was a maid at St. Andrew's Hospital. She came from the county and was infected before arrival.

Typhoid
Fever

There were no notifications of acute poliomyelitis, cerebrospinal fever, encephalitis lethargica, or acute polio-encephalitis and no reason to suspect the unrecognized existence of these diseases.

Cerebro-
spinal
Fever, etc.

No special comment is called for in reference to the forty-five notifications of erysipelas, but a death from this disease occurred at the General Hospital of a previously unnotified case.

Erysipelas

None of the twelve notified cases of malaria was indigenous. A woman thought at first to have contracted the disease locally was kept under observation, but was found eventually not to be suffering from malaria.

Malaria,
etc.

No evidence was forthcoming of the existence of either dysentery or trench fever, which became notifiable in consequence of the war.

Notifications were received on twenty-eight occasions of ophthalmia neonatorum, twenty-six from medical practitioners only, one from a midwife only, and one from both practitioner and midwife. They came from every ward except Abington and Delapre. All were in infants under three weeks old and the average age at the time of notification was ten days. Twelve were in males. In all except one the birth was duly notified. In twelve a Record of Sending for Medical Help in accordance with the terms of the Midwives Acts was received from the midwife in charge. Three of the confinements took place at the

Ophthalmia
Neona-
torum

Maternity Home. All but one were visited by the Departmental Staff. In five instances venereal disease was admitted and it was suspected in several of the others. Seven were treated at the Out-patient Department of the General Hospital and one was admitted to that Institution. All but two of the remainder were under the care of a medical practitioner usually assisted by one of the Queen's Nurses. These two were looked after by one of the Queen's Nurses only. Three cases died, one became blind in the left eye, one recovered with squint, and the others without any abnormal condition.

Diphtheria

The history of the town shows that up till 1911 this disease hardly existed as a menace to public health. Since that year, however, it appears to have come to stay. Such a condition finds parallel in many of the urban districts in this and other countries and research in epidemiology has shown that it is the *habit* of the disease, after long periods of comparative absence, to visit localities and to remain with slight annual fluctuations for years. In each of my recent reports, therefore, I have dealt with the disease at some length.

In 1920, there were 202 cases notified, a very different figure from that of ten years ago. In Table 20 the yearly number notified and other information will be found in regard to this disease. The Table deals with the ten-yearly period, 1911-1920. For the sake of comparison it is interesting to find in the decennium previous to this the annual average was 32, an approximate attack-rate of 0.35 per thousand.

The 202 cases were all amongst the civil population. Outside these, there was only one amongst our military visitors. Seven belonged to the county and were notified because they were admitted to the General Hospital for treatment. Of the remainder, further observation showed that five were not cases of diphtheria, so that the total number of presumably genuine cases amongst the civil population was 190.

Of the original 202, 140 were admitted to the Borough Hospital and four to the General Hospital. In this way over 71 per cent. were isolated.

There were nine deaths and the death-rate is 0.10. This compares favourably with the whole country in which the death-rate was 0.15. Of the nine deaths it is interesting to note that two occurred before notification was received, two on the same day, and one died on the day following. In the absence of timely information it is difficult to see what can be done effectively to control the spread of the disease or mitigate its severity. The characteristics of the outbreak were similar to those of previous years of which so much has been written in recent reports and there is little to be gained by re-writing them. The incidence was comparatively evenly spread over the town. There was a marked absence of secondary cases in infected houses and infection by personal contact was hard to demonstrate.

It may be deduced from the number of bacteriological reports received each year that the value of the laboratory as an aid in diagnosis, at least, is becoming gradually recognised. There was such a report in connection with all the cases but twenty-one. Many of these, however, were asked for not so much to help the diagnosis as for the purpose of finding out when the throat, etc., was in such a condition of freedom from the presence of the active germ as to warrant the discharge of the case from isolation. As a rule no case treated was considered fit for discharge until two swabbings from the throat and one from the nose consecutively failed to show the presence of the bacillus. In every case in which bacteriological examination was made rather more than five swabs, on an average, were submitted. There were altogether 959 reports received of which 583 were negative and this on the total cases notified shows a proportion of 4·7 swabs per case.

This disease calls for special mention. There were altogether twelve cases notified but another occurred which was not notified. It was admitted to the General Hospital, but previous to admission the practitioner did not suspect sepsis and the Hospital Authorities were under the impression that he did. It was not known to the Department, therefore, until the death was registered, although it was treated for the disease. Reference to Table 23 will show that this number is an abnormally high one as compared with any of the last ten years. This, I think, is the experience of many towns during the year under consideration and so far I have no adequate explanation to offer.

There were five deaths. Besides those there was another classified as due to "other accidents and diseases of child-birth," so that the number directly or indirectly attributable to child-birth was six. This is in the proportion of one to every 375 births registered. It is, however, too high to represent the actual facts as stillbirths are not registered.

Two of the thirteen cases belonged to the county, sent into the General Hospital for treatment and notified thence. Of the remaining eleven, five were in medical practice and in six the confinement was attended by a midwife.

The scheme for dealing with these diseases has been communicated at some length in previous reports and will not be set forth again in detail. I have only to mention that the usefulness of the Clinic at the General Hospital has increased during the year by the extension of facilities for the continuous treatment of gonorrhœa and the special appointment of an official to superintend this under supervision of the Medical Officers.

In 1920 the number of cases belonging to the County Borough of Northampton, which commenced treatment for the first time as out-patients was 189. The following tabulation shows how this figure is made up—

Puerperal
Fever

Venereal
Diseases

CONDITION.	MALES.	FEMALES.	TOTAL.
Syphilis	49	27	76
Gonorrhœa	79	10	89
Soft Chancre	1	3	4
Other than Venereal ...	18	2	20
Total	147	42	189

The records give the information that only four male and one female gonorrhœa cases were discharged after completion of treatment. There were 3,260 attendances at out-patient clinics and 53 days were spent by patients as inmates of the Institution. 785 doses of salvarsan substitutes were used in the treatment of 175 cases, the substitutes being novarsenobillon and sulpharsenol. Eighty-two left before treatment was completed and these are classified as follows:—

CONDITION.	MALES.	FEMALES.	TOTAL.
Syphilis.....	29	19	48
Gonorrhœa	31	1	32
Soft Chancre	1	1	2
Total	61	21	82

The course of treatment described in the Report for 1919 was continued during the present year, the tests recommended by the Ministry of Health being utilised as a means of gauging its effect. The establishment of a Pathological Laboratory in close touch with the Clinic proved an inestimable benefit and greatly facilitated the work, in contrast to the difficulties and delays necessarily attendant upon using the Birmingham Laboratory as previously. In the earlier part of the year this work was still done at the Birmingham University, but from the beginning of April the new Laboratory at the General Hospital was made use of. 336 pathological specimens were examined on behalf of the Clinic and 51 for medical practitioners outside the Clinic. There was thus an encouraging increase in the use made of the laboratories by the practitioners of the town, but the great bulk of the treatment of venereal disease is still done at the Special Clinic.

As previously, the educational and publicity campaign was handed over by the Town Council to the Local Branch of the National Council for Combating Venereal Diseases. Again I give extracts from the annual reports of this Branch as showing the character and scope of this work:—

“ In February the members of the Branch and others interested were called together at a Public Meeting in the Free Library, which was addressed by Mr. E. B. Turner, from the National Council, on ‘ Venereal Diseases and Reconstruction.’ ”

“ In April a campaign of lectures was carried out on behalf of the Branch amongst the male operatives in the boot and shoe factories by Mr. H. R. Elliott, a district representative of the National Council. This campaign received the hearty co-operation of the Trades and Labour Councils, the Branches of the Trades Union and the men themselves. The Manufacturers' Association, though appealed to, declined to co-operate, but the individual manufacturers approached in most (though not in all) cases cordially approved and assisted. This campaign should have ended with a mass meeting in the Town Hall, but, owing to the unexpected intervention of a local Parliamentary By-election, this latter had to be postponed indefinitely. It is hoped to continue these series of lectures both to men and women in the factories later.”

“ In May a Conference under the auspices of the National Council and its Northampton Branch was held in the Town Hall. It was called together by the Secretary of the Federation of Trades and Labour Councils of the Northampton Area and was attended by delegates from the Branches of the Federation all over the area and by representatives of most of the Labour organisations in the town and of various sections of the general public. The meeting was addressed by Mr. E. B. Turner and Mr. H. R. Elliott.”

“ The Chairman of the Executive Committee (Dr. Wm. Ross) just before Christmas gave a short lecture to men only in the College Street Chapel which, judging from the number present and the subsequent interest evinced in a practical manner, was greatly appreciated.”

All these meetings were well attended and many of them were crowded. There was every evidence that the work of the Branch was much appreciated.

This disease accounted for 135 notifications, two of which Pneumonia were afterwards found to be secondary to whooping cough. These, therefore, are deleted. Of the 133 cases, 80 were of acute primary pneumonia, 32 of broncho-pneumonia, and 21 post-influenzal pneumonia. In the table below and the remarks which follow it I have excluded the 32 cases of broncho-pneumonia as belonging to a group apart. This leaves 101 cases as follows :—

	MALES.	FEMALES.	TOTAL.
Acute Primary Pneumonia	55	25	80
Acute Influenzal Pneumonia	13	8	21
<hr/>			
Total	68	33	101
<hr/>			

By far the greatest number occurred in young adults between the ages of 25 to 45 years, the average age being 29-30 and a little lower in the case of the primary than in the post-influenzal type. They were notified from all over the town with the exception of St. Lawrence's, but appear to have been specially prevalent in St. James', Castle, and North Wards. There were, however, only two households in which primary pneumonia recurred, one in Kingsthorpe where a mother and child had the disease about the same time followed about a month later by a second child. The other instance was in a household in St. James', in which a youth developed the disease and about a week later his mother and elder brother took ill, all three dying within a few days. There was no evidence of a household spread of the influenzal type. Acute primary pneumonia occurred throughout the whole year though the greatest incidence was in the months of March and April. The influenzal variety was almost limited to this period.

Amongst the foregoing, twenty-four were fatal, a case death-rate of 23.6 per cent. This fatality was almost equal in the two sexes. Eleven of these were over 45 years of age, giving a fatality in this group of 50 per cent. There were registered, however, altogether 34 deaths from pneumonia, but this includes deaths of cases in which it was secondary to other diseases as well as two "transferable deaths" which took place outside the town. A number of these deaths, however, occurred in cases which were not notified through inadvertence on the part of the practitioner in attendance. In each of these latter the medical practitioner was communicated with and his attention called to the omission. The notification of this disease became compulsory so recently that the fact does not yet seem to be appreciated by some. It is interesting to note that there were nearly twice as many deaths amongst males as amongst females (22 and 12); that the average age at death in each sex was between 42 and 43; that they occurred in every ward except Delapre and by far the greatest number in the month of March.

Tuber- culosis

A brief summary of the anti-tuberculosis scheme in force during the year will not be out of place. This consists of:—

(1) A Dispensary within easy distance of the Central Health Department, suitably equipped, to which is attached a laboratory with all the facilities for the necessary bacteriological work;

(2) A hospital containing 28 beds for the accommodation of observation cases from the Dispensary, cases isolated from households with presumably susceptible contacts and cases intended for domiciliary treatment sent for a preliminary period of education;

(3) Twenty beds in the Northamptonshire Sanatorium for early cases in which the course of the disease is likely to be arrested. This institution does not belong to the Council, but

the Medical Officer of Health is a member of the Executive and House Committees of Management. Beds in other sanatoria, if necessary or desirable, are made use of in special cases ;

(4) About a dozen shelters for domiciliary use are provided at the Dispensary ;

(5) Light work is provided in the parks and elsewhere under Corporation Departments in suitable cases on the recommendation of the Tuberculosis Officer.

The Medical Officer of Health is the Chief Tuberculosis Officer but his duties are mainly administrative now, unless in the temporary absence of the Clinical Officer.

Dr. Stephen Rowland is the Clinical Tuberculosis Officer and is in charge of the Dispensary and the Hospital. His whole time is devoted to tuberculosis work, though he is not resident at the latter institution.

At the Dispensary the whole-time services of a specially trained nurse and a senior clerk are provided. The School Medical Officer, the Clinical Tuberculosis Officer, and the Medical Officer in charge of Maternity and Child Welfare, are Assistant Medical Officers of Health and hence a co-operation is maintained which would not be so easy otherwise, and which is of immense advantage to each sub-department as well as to the work of the Health Department as a whole.

Every notified case, unless in very special circumstances, is visited at home in the first instance by the nurse and many re-visits are made. In numerous instances, cases are sent by the general practitioners in attendance to the Dispensary to consult the Tuberculosis Officer who also visits at the homes where necessary. The details of this work will be found in the report of the Tuberculosis Officer which, along with the usual tables, forms Appendix I. of this Report.

The report deals with the notification of the disease, with the deaths and with the scope and results of treatment. A few points, however, may be emphasised here. The continued fall in the death-rate from both forms of the disease from the rather high position it occupied during the war period is worthy of note. It is a good many years since such low figures were shown.

Dr. Rowland's remarks on the lack of early notification are emphasised by the consideration of a table I have had constructed and present in No. 24. From this it will be seen that in the case of pulmonary tuberculosis nearly 41 per cent. of the deaths occurred either before notification or within six months of it and in the so-called non-pulmonary group this proportion rises to about 67 per cent. I consider that this table shows up the state of affairs more clearly than that included in Dr. Rowland's report. (Table T.15).

It is hard not to be a little pessimistic in regard to the results of our attempts to deal with the disease when such a state of things goes on from year to year, as our efforts on behalf of the cases depend so much on our knowledge of their existence. Although the medical profession cannot be altogether absolved from blame, I find there is a great tendency to exaggerate the part it plays in this. My experience is that the patient himself is largely responsible on account of his fear to face the consequences of his being known to have the disease. In my opinion he is penalized too much (1) in the early stage and (2) even after a period of institutional treatment has succeeded in arresting its progress or rendering it quiescent. The infectivity of the tuberculous case is much exaggerated. Usually this period of infectivity is quite a small one relatively. Until this is recognised and many of the unnecessary disabilities removed we shall always have this handicap neutralizing our efforts and wasting our money.

Borough Hospitals

SMALLPOX HOSPITAL, HARDINGSTONE. This Institution, which is kept in readiness at all times for immediate use for a case of suspected smallpox, was again not required. It will be staffed and provisioned in emergency from the Harborough Road Hospital and all arrangements are made for this.

WELFORD ROAD HOSPITAL. This Institution forms part of the scheme of anti-tuberculosis measures already mentioned in the paragraph on tuberculosis and reference to the Report of the Clinical Tuberculosis Officer (Appendix I.) will supply the information respecting the work done at this Hospital.

HARBOROUGH ROAD HOSPITAL. This Hospital is used for the isolation of cases of communicable disease (*e.g.*, scarlatina, diphtheria, typhoid fever, and in special circumstances measles, epidemic diarrhoea, pneumonia, influenza, etc.). Since the outbreak of war it has also been used for the isolation of military and naval cases of communicable disease in the neighbourhood under agreement with the War Department, and has attached additional accommodation built and equipped for the War Office for this purpose. The circumstances and arrangements in this connection were fully set out in the Report covering the war period and are not here recapitulated. Table 25 gives the numbers and classification of the cases dealt with in 1920.

Clinical Work

SCARLATINA. Fifty-two cases, all of which are classified as genuine though several were doubtful, finished treatment during the year and were discharged. There were no deaths. The average length of stay was 47·4 days.

DIPHThERIA. Of the cases of this disease admitted there were 137, which completed the necessary term of treatment and isolation during the year, but three of those were found on observation not to be true cases of diphtheria. Of the genuine

cases, four died—a fatality of 3·0 per cent. The average duration of illness in these four was 4·75 days. Amongst the 130 which ended in recovery the average duration of the case was 43·8 days. Only one of these was a military case.

TYPHOID FEVER. There was only one, a member of the staff of another institution. The case was a typical one of average severity though without any serious complication and recovered after a stay of 113 days.

There were in addition to the above, five civilian and seven military cases of measles and one military case of erysipelas under treatment.

The next Table (No. 26) is re-inserted for the sake of continuity of record as there were comparatively few complications to record. Toxæmia and cardiac paralysis were the only fatal ones. There were three or four instances of children admitted suffering from ringworm of the scalp and at least one from scabies.

There were no cases of scarlatina or diphtheria admitted which occurred, either in the same house or from contact with it, within a period not less than 24 hours and not more than 28 days after the return of a previous patient from the Hospital. Such are the cases which it is the custom in these reports to designate “return cases.”

The Tuberculosis Dispensary was utilised in the bacteriological diagnosis of most of the cases of tuberculosis or suspected tuberculosis dealt with. Bacteriology

For the first quarter of the year until the local laboratory was in working order, the bacteriological work in connection with venereal diseases was done at the University of Birmingham and the rest of the bacteriological work at the Lister Institute. Since the beginning of April, however, all this has been transferred to the Pathological Laboratory at the General Hospital.

A summary of the bacteriological work carried out with the exception of that in connection with venereal diseases will be found in Table 27.

I am indebted for information received each month from Mr. R. H. Primavesi from which the table of meteorological data (Table 28) is constructed. Meteorology

Table 29 gives the number of articles disinfected by steam at the Disinfecting Station, St. Andrew's Road. Disinfection

V.—MATERNITY AND CHILD WELFARE.

Infant Mortality

The number of deaths of infants under one year of age during the year was 166. This is an infant mortality of 73·8 per thousand. It is the lowest figure in the last decennium, with the exception of 1912 and 1916, and compares favourably with the similar figure in the usual local groups included in Table 30. Reference should here be made to Table 31 which affords interesting information for comparison with former years.

As usual, by far the most serious cause of death is prematurity and those conditions dependent on prematurity. This is a fact which has been pointed out in these reports year by year, but still does not receive the attention which I think it merits. The proportion of infants born into the world in an unfit condition to live, both in Northampton and in most other places, is very significant and at the risk of being tiresome I must again state that the bulk of it is due to the maternal condition previous to the birth. We are seeing year by year a diminishing mortality coincident with and, I am positive, largely dependent on our efforts on behalf of infant welfare. It is significant, however, in spite of this progressive reduction, that the mortality for such very young infants as can survive their birth is absolutely at a standstill. This is parallel with the fact that hitherto little or nothing has been done in pre-natal work.

Taking the proportion of infant mortality stated to be due to premature birth alone, we find instead of progressively decreasing it is actually increasing and that markedly. In the four-yearly period, 1903–1906, we find that 15 per cent. of the infant mortality was due to premature birth, but in 1915–1918 (the war period) it had risen to 21 per cent. and in the last two years to between 28 and 29 per cent.

As I have previously stated almost all of the infants which die under one month of age do so from causes acting previously to their birth and the same remarkable rise is progressive amongst these during the four-yearly periods above quoted, with the exception of the war period when the progression was interrupted by a small decline. These facts make it obvious that the same determined efforts which during the last twenty years have been directed to post-natal infant welfare should be turned on the pre-natal period. As will be shown later in the Report a beginning has been made.

Amongst the infant deaths in 1920 more than one half occurred previous to the completion of the first month. Amongst other causes of infant mortality during the year under review the only important ones appear to be bronchitis and pneumonia, from which 31 infants died, and diarrhoeal diseases, from which there were 14 deaths.

Under the Notification of Births Act intimation was received of 2,180 births. Comparison with the numbers in former years will show that this is a somewhat phenomenal figure. The bulk of the increase occurred in the first half of the year and I pointed out in my previous report that there was an indication of it in the latter part of 1919. This has been taking place all over the country and is believed to be one of the reactionary happenings consequent on the recent war.

Notifica-
tion of
Births

A feature of the notification of births is that it includes stillbirths and is the only official source of information on this point that we have, as stillbirths are not registered. Unfortunately, however, I have reason to believe that the notification of stillbirths is by no means complete. Such as it is, however, it has afforded us information that 86 occurred during the year. This figure represents 3.9 per cent. of the total notified. I am sure that this does not represent by any means the whole of the stillbirths and it is unfortunately extremely difficult to obtain reliable information as to the causes. Judging from the cases investigated it would appear that just under one-third of the stillbirths are premature.

Reference should be made here to Tables 34 and 35, the latter of which shows the sources of notification and it will be noted that the percentage notified by medical practitioners and by parents is decreasing. In part explanation of this, however, it must be stated that of the large number of confinements occurring in the two maternity homes in the town, a considerable portion are really practitioners' cases but are left to be notified by the staff of the institutions, whereas, under other circumstances they would probably be notified by the practitioner himself.

Table 36 gives, as in former years, the classification of such notified and non-notified cases of birth as formed the subject of investigation by the Health Visitors. For the purposes of comparison, I shall here closely follow the lines of former reports.

Over 85.7 per cent. of the total number of births notified is included in the table, as well as 132 births which were not notified. It represents 1,969 separate confinements, 711 of which were first confinements (36.1 per cent.). 102 (5.2 per cent.) were premature confinements and 34 (1.7 per cent.) resulted in multiple births.

Of the 2,003 total births represented in the table, 67 (3.3 per cent.) were stillbirths and 61 (3.0 per cent.) were illegitimate. This latter represents 59 separate illegitimate confinements.

From the above we find that the increase in the proportion of confinements found to be first confinements is maintained. The annual average proportion from 1911 to 1918 was 27.3 per cent., but in 1919 the proportion rose to 36.0 per cent.

It will be noted that the above figures differ slightly from those in Table 37, which in all cases refer only to notified births.

Home
Visitation

The following particulars give some idea of the part of the work done by the Health Visitors during the year :—

Total number of visits paid to households in which a birth was notified (the visit in the case of twins being counted as one)	8,658
Of these, first visits comprised.....	1,949
And subsequent visits	6,709
Total number of notified births visited.....	1,827
Number of non-notified births visited.....	143

It was found on the first visit that 70 of the infants had already died (3·6 per cent.).

I regard this home visitation as the most important part of infant welfare work devolving on the Health Visitors, four of whom were at work during the year. The details were put down at length in the Report for 1919 and reference should be made to this document. During the year, 371 visits were made to expectant mothers and 2,149 to children between one and five years of age. It will be seen that these numbers are smaller than similar figures given in the previous year's reports in spite of the fact that during the whole of the year the number of Health Visitors was increased. The reason for this is that owing to the greater number of births, more of the Health Visitors' time was taken up in visiting recently born infants, while the work carried out by these officials at the maternity and child welfare centres was greatly increased, as will be seen below.

Before leaving this subject I must refer to Table 38, which, as in former years, gives some idea of the conditions in regard to overcrowding in the homes visited. The investigations, however, refer to separate confinements with the exception of illegitimate births. It must also be stated that in fifteen instances the investigation made was incomplete so far as this particular information is concerned and these are deducted, thereby reducing the number of investigations. The same value does not attach to this Table as in former years as, since the return of the ex-service men to the abnormal housing conditions, these conditions are found to change so frequently that there is really no permanence.

Midwives

The supervision of midwives was carried out similarly to former years and during the year 19 routine and 22 special visits were paid by the Health Visitors. The proportion of births attended by midwives remains generally about the same and the number of these women practising was 28 during the year. The whole of these did not practice at the same time as those connected with the Queen Victoria Nursing Institution came and went every few months. The figure 28 represents those who intimated their intention to practice or that they had already practised but only in an isolated case.

The number of untrained midwives amongst them was only three. These three and one or two of the trained midwives do very little work, so that the most of the maternity work is in the hands of the Queen's Nurses and two, or at the most three, midwives practising independently.

Table 39 in the Appendix gives, as in former years, the number and character of the notifications received in accordance with the requirements of the Midwives Acts.

At the very end of the year the frequently urged, but long delayed, appointment was made of an Assistant Medical Officer to supervise all the details of the work in connection with maternity and child welfare. The necessity for making this new appointment was shown in my last Report. So late in the year was it before Dr. Emily H. Shaw took up her duties that the work dealt with in this Report has little reference to her. Previously, the Medical Officer of Health endeavoured, along with his many other duties, to supervise as far as possible.

General
Arrangements
for
Maternity
and Child
Welfare

As soon as practicable after the receipt of the notification of a birth the Health Visitor in most cases visited the home. Usually, however, as the case was in the care of a medical practitioner or of a certified midwife, the visit was not paid until the period of skilled attendance had finished. There were, of course, occasional exceptions to this rule where the need seemed urgent. Thereafter it was kept under observation more or less closely during the first year of life by re-visits to the households, where necessary, or by supervision from a maternity and child welfare centre. All of this was done by officials and no voluntary assistance was received in the work. After the first year, occasional visits were made to the home, though it was impossible to keep this work up in every case. The numbers will be seen in the special paragraph dealing with home visitation.

At the centres the officials had the assistance of the ladies of the Northampton Maternity and Infant Welfare Association, while the medical work was carried out by four local medical practitioners.

Maternity
and Infant
Welfare
Centres

At the beginning of the year there were five centres in full working order and one other at the Doddridge Memorial Church opened at the very end of the previous year was just commencing. During the year, two further centres were opened, one at Far Cotton in June and another at Kingsthorpe in July, while the Abington Avenue Centre took the place of that at Mount Pleasant in the month of May and the St. Edmund's Centre that at Victoria Road in November. There were thus eight at the end of the year. This meant an increase in the work of the staff and partly accounts for the smaller number of re-visits to homes.

In the Appendix, Table 40 gives a succinct statement of this centre work. It will be noted that the Abington Avenue Centre shows no consultations, owing to the fact that the attendance of a medical practitioner was suspended here pending the appointment of the Assistant Medical Officer.

I have all along felt that there is not a real need for so many centres in a town the size of Northampton and the attendances at each, in my opinion, are unnecessarily large. The reason for both those conditions it seems to me is to be found in the fact that the work undertaken embraces more than is generally included in maternity and child welfare. Mainly owing to the lack of direct medical supervision from the Public Health Department, the social side has grown out of proportion to the real medical work and some of the mothers and babies are attending these centres unnecessarily. I hope that now we are in a position to keep in closer touch, we shall be able to reduce the number of our centres and to limit the attendance at each without seriously impairing its efficiency. The purely medical side should be extended if necessary at the expense of the social, while energies must be devoted to pre-natal work which so far may have been otherwise dissipated.

Very little was attempted in regard to prenatal welfare during the year for reasons which will be obvious from the above. The Health Visitors, however, had made a good many visits to households before birth and tendered advice which in most cases was appreciated and acted upon. The table already referred to shows that there were a few consultations between the medical staff and expectant mothers at the centres.

Day Nursery

This Institution carried out its beneficent work throughout the year, although towards the end, following on an outbreak of infectious disease and coincident with and probably consequent on our widespread trade depression, the numbers fell off rapidly. So much was this the case that certain members of the Council, prompted by the zeal of a few voluntary workers, began to cast doubts on the usefulness of the Institution from an economic point of view. Unfortunately, some colour was given to the suspicion that a slur was cast upon the efficiency of the administration. I do not hesitate to say with all the power at my command that if such aspersions were intended they were utterly false. In the early part of the present year (1921) when the sub-committee appointed to investigate the matter recommended the closure of the Institution, it was made perfectly plain that there was "no reason to complain of the present administration of the Nursery." This report was accepted first of all by the statutory committee for Maternity and Child Welfare, and also by the Town Council, and should be a definite settlement of the point. Stronger comment would not be without warrant but it is possibly more discreet to refrain.

The following are some of the statistics showing the extent of the work carried out. 42 children were admitted for the first time during the year. The highest number in the Institution on any day was 36 ; this occurred on one day in April and three days in May. The average daily attendances during the year was 19·9, calculated on a week of eleven half-days. The Nursery was closed from 1st to 19th July on account of an outbreak of measles and on the re-opening a higher scale of fees was brought into operation.

In spite of the difficulties mentioned in my last Report as due to the construction of the premises, I have nothing but the highest praise for the way in which Miss Joseph, the Matron of the Institution, carried out her difficult duties in a remarkably economical manner. Unfortunately, these difficulties were so great that all personal efforts at economy were handicapped.

The Town Council, for reasons given in last year's Report, has not attempted to establish maternity homes or hospitals of its own, but every effort has been made to co-relate the other work it is doing with that of the Queen Victoria Nursing Institution, which has undertaken to provide institutions of this nature. There are now two of these—the Colwyn Road and “ Rosslyn House ” Maternity Homes. These are worked on lines approved by the Committee and its officials and also by the Ministry of Health and, as has been stated before, form part of the local scheme for maternity and child welfare. Cases are admitted without distinction and no other reservation is made than on medical grounds if there is room. They are conducted by qualified midwives assisted by pupils and the patient is attended, if she desires, by her own medical practitioner. No definite arrangement has existed for assistance by the Town Council other than the fees for professional medical attendance in necessitous cases in accordance with the terms of the Midwives Act, 1918, and midwifery attendance in accordance with a resolution of the Town Council dated 8th March, 1920. In accordance with this latter resolution the fee of any certified midwife practising in the town is paid in whole or part in approved necessitous cases.

At the Colwyn Road Home during the year ended 31st March, 1921, 159 cases were attended by medical practitioners and 121 by midwives, making a total of 280 belonging to Northampton alone. In addition to these there were 24 cases which came from outside the town.

At “ Rosslyn House ” there were 31 doctors' and 52 midwives' cases and 16 besides from outside.

I wish to state that I thoroughly appreciate the excellent service to the cause of maternal and child welfare rendered by these Institutions and although occasionally untoward incidents happen which may give rise to complaint, frivolous often, I have reason to be satisfied with the general management. Unfortunately, owing to the cost of living, the fees charged, if

the Institutions are to be self-supporting, are rather beyond the means of that class of patient that would benefit most. I feel that it will be necessary in the immediate future to make some arrangement for assistance from public authorities as well as from private benevolence.

Other Work

The supply of milk to necessitous pregnant and nursing mothers has been continued much on the same lines as in the previous year, but owing to the increased number of births, the trade depression, and the consequent increase in unemployment, with at the same time a high cost of living, the expenditure on this has greatly exceeded that of the previous year. This has occurred, of course, all over the country and has called for the most rigid supervision. I think Northampton will be found to compare favourably with most industrial towns in the matter of economy, but it is difficult to maintain this position without some sacrifice. In this way 412 women were supplied, at the public expense, with that quantity of milk deemed necessary to supplement their ordinary supply. In most cases the amount authorised was one pint daily for one month, but if the need still existed there was renewal at the end of this period. The approximate cost has been £568 for the year.

In addition to this, the sale of dried milk from the Public Health Office was continued and 5,305 one pound packets were sold at cost price. This represents a weight of over two tons seven cwts. and a cost of nearly £700. It may be mentioned that this milk is only sold to cases recommended by the Health Visitors or Medical Officers. There were 221 cases.

The arrangements with the Queen Victoria Nursing Institution for assistance to the home nursing of certain cases of infectious disease in young children again remained in force, but as no serious outbreak occurred during the year these services were hardly utilised at all.

Before leaving the subject of maternity and child welfare, it is necessary to mention the subject of stillbirths, the development of ante-natal work, the incidence of puerperal fever, ophthalmia neonatorum, measles, whooping cough, epidemic diarrhoea, poliomyelitis, and other infectious diseases, referred to in the memorandum of the Ministry of Health concerning the arrangement of reports of medical officers of health. Certain of these matters will be found under the section dealing with communicable diseases. Where not fully dealt with I hope that in future, now that the services of an Assistant Medical Officer are available for the work, some investigations along these lines will be sufficiently far forward to receive more than passing comment.

VI.—HOUSING.

For the continued history of the houses previously dealt with under Section 17 of this Act, Tables 41 and 42 should be consulted. The record is brought up to the end of 1920 and if compared with the similar record in the previous Annual Report very little progress will be apparent. This, of course, is due to the continued dearth of houses available for the increased married population subsequent to the war. This made it impracticable even to consider in many instances the making of closing orders as the occupants could not be turned out with no homes to go to. Even where a closing order was actually made it was not put in force for the same reason. No new demolition orders were made and in only one case, left from last year for subsequent consideration, was there a closing order made.

Housing,
Town
Planning,
&c. Act,
1909

This inability to deal with the houses satisfactorily in the immediate future influenced the action of the Medical Officer of Health in representing houses and only four such representations were brought to the Committee. The Committee only made closing orders in respect of one property and even in that the operation of the order was suspended. In two further cases action was postponed for further consideration and in the fourth an attempt was made to deal with the property temporarily under the Public Health Acts.

As stated in the previous Report a draft scheme under this Act was presented and generally approved in 1919. It was stated, however, that the survey was a rapid one and required a great deal of detailed work before it could be considered final, and the year now under consideration was occupied by this work. The services of the whole Staff of Inspectors were requisitioned and a portion of each week was devoted by each officer to the task. In this way 335 houses included in the temporary survey were examined in detail and the particulars recorded. At the end of the year this was still in progress and from the information thus obtained it is hoped to complete the survey. It is, of course, premature to attempt to draw any conclusions at the present moment.

Housing,
Town
Planning,
&c. Act,
1919

In addition to the work under Section 17 of the Act of 1909, the following houses were reported under Section 28 of the later Act :—

Nelson Street, Nos. 2, 4, & 6 ;

Leicester Street, Nos. 25, 27, 29, 31, 37, and 39.

The necessary order was made by Council for the work specified in the notices to be carried out and this was done in a fairly satisfactory manner.

In the previous year, certain property which was reported under this Act remained to be dealt with during the present and the following is the action taken with respect to it :—

Leicester Street, Nos. 34, 36, 38, 40, 42, and 44. Notices withdrawn by the Council and the owner voluntarily put the property into habitable condition.

Brunswick Street, Nos. 31 and 33 ; Market Street, No. 5. Notices served and all necessary work carried out satisfactorily.

Public
Health
Acts

Seven occasions of overcrowding were reported. Owing, however, to the abnormal housing conditions much of this work had to be in abeyance and even in the cases which were reported very little could be done to remedy matters. There is no doubt that during the year and even now a very considerable amount of overcrowding of families in houses exists and it is impossible to deal with it satisfactorily.

Forty-four houses, or parts of houses, were reported by the Medical Officer of Health under the terms of Section 46 of the Public Health Act, 1875, as being in such a filthy or unwholesome condition that the health of the occupants was affected or endangered thereby and that the cleansing and whitewashing were urgently required, or that the whitewashing or cleansing would tend to prevent the spread of infectious disease. No prosecutions were necessary and the requirements of the Department were eventually carried out in each case.

Prosecu-
tions

Apart from the legal proceedings in connection with unsound food and under the Food and Drugs Acts, there was only one prosecution undertaken during the year. This although in connection with a comparatively small matter was adjourned twice before it was finally settled. It was in reference to notices served under Section 91 of the Public Health Act, 1875. The owner was prosecuted for non-compliance with the terms of a notice requiring repairs to property. An order was made for the work to be carried out within twenty-one days, but as this was not obeyed further proceedings resulted in a penalty of £3 6s. od. Eventually the work was carried out satisfactorily.

Factories
and
Workshops

Table F summarises the work done in connection with the Factory and Workshop Act, 1901. The same difficulty existed as in former years in obtaining the reports of outworkers with anything like regularity and punctuality. These reports are required in February and August of each year in compliance with the terms of Section 107.

APPENDIX I.

REPORT OF CLINICAL TUBERCULOSIS OFFICER.

TUBERCULOSIS DISPENSARY,
2, HAZELWOOD ROAD,
NORTHAMPTON.

To the Medical Officer of Health.

SIR,

The anti-tuberculosis measures outlined in last year's report Treatment have been in operation during 1920. Owing to the financial state of the country, in which Northampton shares, it has not been thought advisable to launch out into any new schemes, but to continue on the old lines until the country returns to a more prosperous condition.

While the number of new cases of tuberculosis notified to the Medical Officer of Health during 1920 was practically the same as in the previous year, the death-rate from tuberculosis continued to fall; and the figure reached for pulmonary tuberculosis (1.06) constitutes a record, being the lowest since compulsory notification of the disease was introduced.

The rise in the incidence of tuberculosis, first noticed during 1917, and generally attributed to the privations and changed economic conditions caused by the war, seems to have passed its zenith, and it is to be hoped the fall in the death-rate will continue, though it is still too early to make a definite statement as we are still far removed from normal conditions in the industrial world. It has been my opinion for some time (and evidence is accumulating, both in this country and America, to support it) that the annual number of notifications received by the Medical Officer of Health is far from being a true index of the incidence of tuberculosis. A more correct estimate can be formed from the phthisis death-rate.

Of the total pulmonary cases notified, 35 were diagnosed at the Dispensary in conjunction with the general practitioners, and it is gratifying to record the cordial relations which exist between the Dispensary and the general practitioners in the town.

I again take this opportunity of urging upon all concerned the necessity of early notification, as it is only while the disease is in its initial stages that any hope of cure, or even temporary arrest, can be entertained.

On looking over Table T15 it will be noticed that of the 98 deaths from the pulmonary form of the disease, 36 were notified in the same year as the death occurred, and I might add many of these had only been notified a few months. The remaining 62 deaths were those of persons notified between 1906 and 1920.

Of the twelve wards into which the town is divided the incidence of tuberculosis is most marked in those areas where overcrowding and insanitary conditions are most prevalent, which is a condition one would expect. Four wards account for half the deaths which occurred from this disease during the year, while only two deaths from the pulmonary form occurred in one ward. Another ward, which lies practically on the level of the river and must necessarily suffer to a great extent from a damp atmosphere (generally said to favour this disease) accounts for only three deaths.

From Table T7, it is calculated 42·1 per cent. (excluding school children) of all occupied males, 28·6 per cent. of all occupied females (including houseworkers), and 38·0 per cent. of all occupied persons were engaged in the staple trade. These figures differ little from those of the preceding year.

At the risk of appearing to repeat my warnings, I ask all to take every possible preventive measure against this disease, for at present and probably for some years to come, the best results will be obtained by concentrating on prevention rather than cure. It is essential that persons found to be in an infective stage should occupy separate beds and, if possible, separate bedrooms. By far the greater number of cases investigated last year had no isolation whatever.

It may appear unnecessary to draw attention to the undesirability of marriage between tubercular persons, whether one or both partners be affected. Cases are occurring from time to time where one of the partners is not only suffering from, but is in an advanced stage of the disease and whose sputum contains large numbers of tubercle bacilli. Such marriages can only end in disaster.

Notification

During 1920, there were 205 notifications of separate cases of pulmonary tuberculosis not previously notified. This number includes one case of tuberculous laryngitis and also one case in which the pleura was affected. There were also notified 32 cases of tuberculosis classified as other than pulmonary. The total number of cases of tuberculosis, therefore, notified for the first time was 237. This is exclusive of 18 cases notified in the town but belonging to other districts; these are known as "outward transferable cases" and are debited to the districts from which they came.

Below will be found a classification of the notified cases according to the part of the body specially affected.

TABLE TI. NORTHAMPTON, 1920.

TUBERCULOSIS. CLASSIFICATION OF NOTIFIED CASES.

	MALES.	FEMALES.	TOTAL.
Pulmonary :—			
Lung and Pleura	117	87	204
Larynx	1	—	1
	118	87	205
Meninges and Brain	2	1	3
Peritoneum and Intestines	1	2	3
Spinal Column	5	2	7
Joints	1	1	2
Cervical Glands	4	7	11
Lupus	1	1	2
Other Organs	2	2	4
Total	134	103	237

Besides the above number there were registered 22 deaths in which no previous notification had been received. Nine of these were “outward transferable deaths” and are not reckoned as Northampton cases and of the remaining 13 the following is the classification :—

	MALES.	FEMALES.	TOTAL.
Pulmonary	3	5	8
Meninges	1	—	1
Peritoneum	—	1	1
Spinal Column	1	—	1
Joints	1	1	2
Total	6	7	13

The tables which follow, as in previous years, refer only to cases of pulmonary tuberculosis.

TABLE T2. NORTHAMPTON, 1920.

PULMONARY TUBERCULOSIS. COMPARISON BETWEEN NUMBERS OF CASES NOTIFIED AND DEATHS REGISTERED EACH YEAR.

YEAR.	Cases notified.	Deaths registered	Death-rate.
1901	44	104	1.19
1902	34	126	1.44
1903	55	114	1.29
1904	71	104	1.18
1905	67	99	1.01
1906	125	80	0.90
1907	99	116	1.30
1908	117	104	1.16
1909	130	118	1.32
1910	124	112	1.25
1911	155	111	1.23
1912	216	119	1.32
1913	230	100	1.10
1914	225	130	1.43
1915	208	114	1.26
1916	188	125	1.47
1917	256	144	1.74
1918	243	185	2.28
1919	204	115	1.29
1920	205	98	1.06
Total	2996	2318	—
Annual Average	150	116	1.31

TABLE T3. NORTHAMPTON, 1920.

PULMONARY TUBERCULOSIS. NOTIFICATIONS AND DEATHS OF CASES NOT NOTIFIED.

	MALES.	FEMALES.	TOTAL.
Number of Cases Notified	118	87	205
Number of Deaths of Cases not Notified ...	3	5	8*
Total	121	92	213

*After deducting the "outward transferable deaths."

The circumstances in connection with most of the above cases formed the subject of investigation. For certain reasons each year this practice has to be omitted in a few instances and during 1920 this occurred in the case of two deaths registered, not notified, and in making deductions from the tables which follow this fact must be borne in mind.

TABLE T4. NORTHAMPTON, 1920.

PULMONARY TUBERCULOSIS. NOTIFIED CASES AND DEATHS OF CASES NOT NOTIFIED WHICH FORMED THE SUBJECT OF INVESTIGATION. DURATION OF ILLNESS.

PERIOD.	Cases Notified.	Deaths Registered of Cases not previously notified.	Total.
Under 6 months	56	3	59
Over 6 months and under 1 year	47	...	47
Over 1 year and under 2 years ...	37	...	37
Over 2 years and under 3 years ...	29	...	29
Over 3 years and under 4 years ...	11	...	11
Over 4 years and under 5 years ...	7	1	8
Over 5 years	5	...	5
Not Ascertained	11	2	13
Not Tuberculosis	2	...	2
Total	205	6	211

TABLE T5. NORTHAMPTON, 1920.

PULMONARY TUBERCULOSIS INVESTIGATIONS.

	MALES.	FEMALES.	TOTAL.
Single	43	43	86
Married	67	40	107
Widows and Widowers	3	5	8
Unascertained	7	3	10
Total	120	91	211

TABLE T6. NORTHAMPTON, 1920.

PULMONARY TUBERCULOSIS INVESTIGATIONS. DEGREE OF HOME ISOLATION FOUND.

	MALES.	FEMALES.	TOTAL.
No. having separate Bedrooms ...	39	41	80
No. having separate Beds (only) ...	9	8	17
No. having no Isolation	63	35	98
No. in Institutions.....	5	5	10
Unascertained	4	2	6
Total	120	91	211

TABLE T7. NORTHAMPTON, 1920.

PULMONARY TUBERCULOSIS INVESTIGATIONS. OCCUPATIONAL INCIDENCE.

OCCUPATION.	NO.	OCCUPATION.	NO.	OCCUPATION.	NO.
Shoe Operatives—		Domestic Servant	2	Packer	1
(a) Clickers.....	7	Draper	1	Painter	5
(b) Lasters	19	Engineer	3	Painter's Labourer	2
(c) Finishers	20	Ex-soldier	4	Pedlar	1
(d) Rough Stuff		Farm Worker	1	Pianoforte Business	1
and Pressmen ...	2	Fishmonger	1	Plumber	2
(e) Warehouse		Furnace Labourer	1	Porter	2
and General.....	8	Furniture Remover	1	Printer	1
Female Workers	25	Greengrocer	1	Schoolchild	18
	81	Grocer's Assistant	1	Secretary	1
Beer Retailer	1	Hairdresser	1	Skirt Machinist ...	1
Blouse Maker	1	Hotel Servant	1	Tailor	1
Bricklayer's		Houseworker	39	Tanner	1
Labourer.....	2	Insurance Agent	1	Traveller	1
Carman	1	Labourer	2	Typist	2
Carpenter	1	Legging Cleaner ...	1	Waitress	1
Celluloid Worker...	1	Machinery		Weaver	1
Chauffeur	1	Salesman	1	Warehouse	
Clerk	8	Maltster	1	(Furniture).....	1
Collier	1	Manservant	1	No Occupation ...	3
Designer (Book		Mental Attendant	1		
Cover)	1	Mineral Water		Total	211
		Bottler	1		

In the next two tables the classification of boot and shoe operatives is the same as in table T7, *i.e.*—(a) Clickers, (b) Lasters, (c) Finishers, (d) Pressmen and Roughstuff Workers, and (e) General and Warehousemen.

TABLE T8. NORTHAMPTON, 1920.

PULMONARY TUBERCULOSIS. DEATHS AMONGST SHOE OPERATIVES.
CLASSIFICATION.

Year	NO. OF DEATHS.			CLASSIFICATION OF MALES.				
	Total	Males	Females	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>
1909 ...	46	32	14	10	6	9	3	4
1910 ...	41	31	10	8	6	8	2	7
1911 ...	49	35	14	8	7	9	—	11
1912 ...	53	38	15	7	11	14	1	5
1913 ...	38	26	12	9	5	8	—	4
1914 ...	72	52	20	8	16	18	4	6
1915 ...	52	31	21	12	5	7	2	5
1916 ...	49	38	11	8	10	5	3	12
1917 ...	56	46	10	7	8	12	6	13
1918 ...	84	60	24	8	19	16	6	11
1919 ...	40	28	12	3	7	12	2	4
1920 ...	34	24	10	4	7	6	1	6
Totals	614	441	173	92	107	124	30	88

TABLE Tg. NORTHAMPTON, 1920.

PULMONARY TUBERCULOSIS. NOTIFIED CASES INVESTIGATED AMONGST
SHOE OPERATIVES. CLASSIFICATION.

Year	NO. OF CASES.			CLASSIFICATION OF MALES.				
	Total	Males	Females	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>
1909 ...	62	40	22	9	8	15	1	7
1910 ...	57	38	19	14	13	9	—	2
1911 ...	73	50	23	11	17	18	1	3
1912 ...	93	62	31	14	19	17	3	9
1913 ...	91	61	30	16	6	24	6	9
1914 ...	105	69	36	15	16	21	4	13
1915 ...	91	62	29	8	16	12	8	18
1916 ...	63	43	20	6	10	9	8	10
1917 ...	74	57	17	8	14	22	7	6
1918 ...	91	56	35	4	11	8	2	31
1919 ...	63	42	21	2	9	10	3	18
1920 ...	81	56	25	7	19	20	2	8
Totals	944	636	308	114	158	185	45	134

The following is a short resumé of the work accomplished by, and in connection with, the Tuberculosis Department, grouped under the following sub-headings :—

- (a) Tuberculosis Dispensary ;
- (b) Welford Road Tuberculosis Hospital and
- (c) Sanatoria.

Tubercu-
losis
Dispensary

ATTENDANCES.

Total number of attendances of patients.....1910

Number of patients attending :—

Males 329

Females 229

— 558

The above numbers included 29 “ contacts ” and 94 persons examined for “ diagnosis ” at the request of general practitioners. One “ contact ” and 35 examined for “ diagnosis ” were afterwards notified.

The average number of attendances per patient was 3.42.

The following is the number of visits made by the Nurse from the Dispensary during the period :—

Number of investigations after notification in the case of :—

Pulmonary Tuberculosis	198
Other forms of Tuberculosis	36
Deaths from Tuberculosis	13
	— 247
Re-visits	826
	—
Total	1073
	—

The following is a summary of the work done at the bacteriological laboratory attached to the Dispensary :—

SPUTUM, URINE, ETC.			
NUMBER OF SUSPECTED CASES EXAMINED.	REPORTS MADE.		
	POSITIVE.	NEGATIVE.	TOTAL.
411	133	358	491

The following is the number of cases dealt with at this Welford Road Tuberculosis Hospital during 1920 :—

	MALES.	FEMALES.	TOTAL.
Number remaining at end of 1919	14	7	21
Number admitted during 1920	50	33	83
Number discharged during 1920.....	44	28	72
Number died during 1920	7	2	9
Number remaining at end of 1920	13	10	23

Of the 83 cases admitted, 62 were insured persons. The classification is as follows :—

For (a) Isolation.....	79
(b) Education	—
(c) Observation	4
	—
Total	83
	—

The following is a summary of the Northampton cases Sanatoria dealt with in sanatoria during 1920 :—

	MALES.	FEMALES.	TOTAL.
Number remaining at end of 1919	8	4	12
Number admitted during 1920	36	20	56
Number discharged during 1920.....	33	19	52
Number remaining at end of 1920	11	5	16

Of the 56 cases admitted, 45 (34 males and 11 females) were insured persons.

In the treatment of the above cases the following sanatoria were made use of:—

- Northamptonshire Sanatorium, Creton.
- Royal National Sanatorium, Bournemouth.
- Harpenden Sanatorium.

In addition to the above, seven cases were sent privately to the Royal National Hospital, Ventnor; one to the Northamptonshire Sanatorium, Creton; one to the Home Sanatorium, West Southbourne, Bournemouth; and one to the King Edward VII. Sanatorium, Midhurst.

On discharge from sanatoria a report is sent from the sanatorium authorities in respect of each patient, giving certain details of the patient's condition at the time of leaving and from a summary of these reports the following table is compiled.

TABLE T10. NORTHAMPTON, 1920.

PULMONARY TUBERCULOSIS. IMMEDIATE RESULTS OF SANATORIUM TREATMENT AMONGST CASES WHICH LEFT THE SANATORIUM DURING THE YEAR.

	NUMBER.	PER CENT.	
Disease reported to be:—			
Arrested	11	21·15	} 63·46 %
Improved	22	42·31	
Not Improved	18	34·62	
Result not known	1	1·92	
Total	52	100·00	

TABLE TII. NORTHAMPTON, 1876-1920.

DEATH-RATES FROM PULMONARY AND OTHER FORMS OF TUBERCULOSIS IN 1916-1920 AND IN EACH OF THE EIGHT PRECEDING QUINQUENNIA.

Quinquennial Periods.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.
1876—1880	1.93	0.51
1881—1885	1.81	0.20
1886—1890	1.60	0.39
1891—1895	1.56	0.30
1896—1900	1.45	0.30
1901—1905	1.25	0.37
1906—1910	1.19	0.31
1911—1915	1.27	0.29
1916	1.47	0.37
1917	1.74	0.29
1918	2.28	0.38
1919	1.29	0.27
1920	1.06	0.13

TABLE T12. NORTHAMPTON, 1920.

TUBERCULOSIS. DEATHS IN EACH WARD FROM PULMONARY AND OTHER FORMS OF THE DISEASE.

WARD.	PULMONARY.			OTHER FORMS.			TOTAL.		
	M.	F.	Total	M.	F.	Total	M.	F.	Total
Abington	3	3	6	—	—	—	3	3	6
Castle	6	6	12	—	—	—	6	6	12
Delapre	2	1	3	1	—	1	3	1	4
Kingsley	1	1	2	—	—	—	1	1	2
Kingsthorpe	4	4	8	1	1	2	5	5	10
North	9	6	15	2	—	2	11	6	17
St. Crispin's	5	4	9	1	1	2	6	5	11
St. Edmund's	3	4	7	—	—	—	3	4	7
St. James'	3	2	5	—	1	1	3	3	6
St. Lawrence's	5	3	8	2	—	2	7	3	10
St. Michael's	10	1	11	1	—	1	11	1	12
South	7	5	12	1	—	1	8	5	13
Totals ...	58	40	98	9	3	12	67	43	110

TABLE T13. NORTHAMPTON, 1920.

PULMONARY TUBERCULOSIS. OCCUPATIONAL MORTALITY
IN AGE PERIODS.

OCCUPATION.	YEARS OF AGE.									TOTAL ALL AGES.
	un- der 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 & over	
MALES :—										
SHOE OPERATIVES (Total)	2	4	5	4	6	2	1	24
(a) Clickers	2	1	...	1	...	...	...	4
(b) Lasters	3	1	2	1	...	7
(c) Finishers.....	1	...	1	2	1	1	6
(d) Pressmen and Rough Stuff Workers	1	...	...	1
(e) General and Warehousemen	2	2	1	1	...	...	6
Army Pensioner	1	2	2	...	1	...	6
Blacksmith	1	...	...	...	...	1
Butcher	1	1	...	...	2
Clerk	1	2	1	...	...	...	4
Currier	1	...	...	...	1
Dairyman	1	...	...	...	1
Draper	1	...	1
Dyer	1	...	...	1
Fishmonger	1	...	...	...	1
Grocer's Assistant.....	1	...	...	1
Hairdresser.....	1	...	...	1
Hot Water Fitter	1	...	...	...	...	...	...	1
House Decorator	1	...	...	1
Labourer.....	1	...	...	...	1
Last Maker	1	...	...	...	...	...	...	1
Mental Attendant.....	1	...	...	1
Motor Driver.....	1	...	...	...	...	1

TABLE T13.—*continued.*

OCCUPATION.	YEARS OF AGE.									TOTAL ALL AGES.
	un- der 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 & over	
Naval Pensioner	1	...	...	...	...	...	1
Painter	1	...	1
Pedlar	1	...	1
Policeman	1	...	...	...	...	1
Porter	1	...	...	...	...	1
Sawyer	1	...	...	...	...	...	...	1
Schoolchild.....	1	...	...	...	...	...	...	...	...	1
Tailor	1	...	...	...	...	...	1
Total	1	...	5	8	13	12	12	6	1	58
FEMALES :—										
Shoe Operatives	2	1	3	4	...	...	...	10
Blouse Worker	2	...	...	...	2
Bottler	1	...	...	...	1
Clerk	1	...	...	...	...	...	...	1
Domestic Servant.....	1	...	...	...	1
Furniture Dealer	1	...	...	1
Housewife	1	6	4	2	2	1	16
Legging Finisher	1	...	...	...	...	...	...	1
Printer's Folder.....	1	...	...	...	...	...	1
Schoolchild.....	1	4	...	...	...	...	...	...	...	5
Wood Tier	1	...	...	...	...	1
Total	1	4	4	3	10	12	3	2	1	40
Shoe Operatives :—										
Males	2	4	5	4	6	2	1	24
Females	2	1	3	4	...	...	...	10
Total	4	5	8	8	6	2	1	34

TABLE T13.—*continued.*

OCCUPATION.	YEARS OF AGE.									TOTAL ALL AGES.
	un- der 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 & over	
All Occupations (exclusive of House- workers and School- children) :—										
Males .....	...	...	5	8	13	12	12	6	1	57
Females .....	...	...	4	2	4	7	1	...	...	18
Total .....	...	...	9	10	17	19	13	6	1	75
TOTAL DEATHS :—										
Males	1	...	5	8	13	12	12	6	1	58
Females	1	4	4	3	10	12	3	2	1	40
Total	2	4	9	11	23	24	15	8	2	98

TABLE T14. NORTHAMPTON, 1920.

CLASSIFICATION OF TUBERCULOSIS DEATHS ACCORDING TO THE PART OF
THE BODY STATED TO BE MOST AFFECTED.

	M.	F.	TOTAL.
Meninges	3	—	3
Peritoneum and Intestines	1	2	3
Spinal Column	3	—	3
Joints	2	1	3
Total	9	3	12
Lungs	58	40	98
Total	67	43	110

TABLE T15. NORTHAMPTON, 1920.

TUBERCULOSIS DEATHS. SHOWING THE YEAR IN WHICH THE CASE WAS FIRST NOTIFIED TO THE MEDICAL OFFICER OF HEALTH.

YEAR OF NOTIFICATION.	M.	F.	TOTAL.
(1) PULMONARY TUBERCULOSIS :—			
1906	1	...	1
1911 .....	...	1	1
1913	2	3	5
1914 .....	...	1	1
1915	3	...	3
1916	5	4	9
1917	4	2	6
1918	6	3	9
1919	14	6	20
1920	21	15	36
Not notified	2	5	7
Total	58	40	98
(2) TUBERCULOSIS OTHER THAN PULMONARY			
1914	1	...	1
1916	1	...	1
1918	1	...	1
1919	1	...	1
1920	1	1	2
Notified after Death	1	...	1
Not Notified	3	2	5
Total	9	3	12

I am, Sir,

Your obedient Servant,

STEPHEN ROWLAND,

Clinical Tuberculosis Officer.

April, 1921.

APPENDIX II.

STATISTICAL TABLES.

TABLE 1. NORTHAMPTON, 1911-1920.
NATURAL INCREASE OF POPULATION IN EACH YEAR OF THE DECENNium.

Year. (middle)	Population. (total)	Births.	Deaths.	Natural Increase of Population.	Increase per 1,000.
1911	90152	1930	1200	730	8.1
1912	90467	1935	1097	838	9.3
1913	90793	1868	1180	688	7.6
1914	91123	1857	1253	604	6.6
1915	91123	1754	1536	218	2.4
1916	93709	1893	1148	745	7.9
1917	91932	1471	1175	296	3.2
1918	90884	1313	1385	—	—
1919	92653	1411	1218	193	2.1
1920	92950	2248	1047	1201	12.9

TABLE 2. ENGLAND AND WALES AND NORTHAMPTON, 1911-1920.
BIRTH-RATES IN EACH YEAR OF THE DECENNium.

	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
England & Wales.....	24.4	23.8	23.9	23.8	21.8	21.6	17.8	17.7	18.5	25.4
Northampton	21.4	21.4	20.6	20.4	19.3	20.2	16.0	14.4	15.3	24.2

TABLE 3. ENGLAND AND WALES AND NORTHAMPTON, 1911-1920.
DEATH-RATES IN EACH YEAR OF THE DECENNium.

	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
England & Wales.....	14.3	12.9	13.3	13.7	14.8	14.0	14.4	17.6	13.8	12.4
Northampton.....	13.3	12.2	13.0	13.8	17.0	13.3	14.2	17.1	13.7	11.3

TABLE 4. NORTHAMPTON, 1920.

SUMMARY OF ROUTINE WORK CARRIED OUT BY THE INSPECTORS OF THE
DEPARTMENT DURING THE YEAR.

	Number of Inspections, etc.	No. at which Nuisances, Con- traventions or Defects found
1.—Total Number of Inspections and Visits	10707	
2.—Number of Premises at which Nuisances were Found		1058
3.—Number of Houses Inspected.....	1601	830
4.—Number of these Houses Repaired		228
5.—Number of these Houses Cleansed and Whitewashed		517
6.—Number of Houses Cleansed after Certificate of M.O.H. (Sec. 46, P.H.A. 1875)		44
7.—Number of First Visits made in consequence of Complaints by Residents	727	600
8.—Statutory Notices Served	466	
9.—Drains :—		
Tested by Smoke Test	73	60
Tested by Volatile Test	49	25
Tested by Water Test	4	0
Exposed under Sec. 41, P.H.A. 1875	17	17
Drains reported choked		113
Drains reconstructed		94
Drains repaired.....		57
Bath, lavatory or sink water pipes dis- connected from drains		1
New pans fixed to closets		35
Indoor soil pipes abolished		0
Closets supplied with flushing apparatus		4
10.—Contraventions of Bye-laws :—		
Animals kept so as to be a nuisance		9
Animals kept in contravention of Bye-laws		6
Other Contraventions		0
11.—Other Nuisances :—		
Overcrowding in houses		7
Yard pavings re-laid or repaired		132
Spoutings repaired or renewed		136
New slop sinks fixed		44
Inspections of courts and alleys	3	0
Houses supplied with town water		0
Accumulations of manure, etc., removed		26
Smoke Observations	2	0
Miscellaneous nuisances		490

TABLE 4.—*continued.*

	Number of Inspections, etc.	No. at which Nuisances, Con- traventions or Defects found
12.—Factories and Workshops:—		
Number of Factories Inspected	10	4
Number of Workshops Inspected	269	26
Number of Workplaces Inspected	8	1
Number of Outworkers' Premises Inspected.....	291	36
13.—Dairies, Cowsheds, and Milkshops:—		
Number of Inspections	248	10
Number of New Registrations	10	
14.—Bakehouses—Number of Inspections	164	49
15.—Slaughterhouses:—		
Number of Inspections while Slaughtering was in Progress	2738	37
Number of other Inspections	26	0
16.—Other Premises where Food is Manufactured or Stored—Number of Inspections	1032	16
17.—Food and Drugs Acts—Number of Samples sent to Analyst	186	26
18.—Infectious Diseases—Visits to Infected Houses—		
(a) First visits for investigation	395	
(b) Weekly visits to secure isolation	174	
(c) Visits to control disinfection	386	
Houses stripped under I.D.P. Act	213	
19.—Tuberculosis—Houses stripped, etc. under Tuber- culosis Regulations, etc.	104	
20.—Number of Visits for Inspection of:—		
(a) Schools	8	1
(b) Public Lavatories	62	3
(c) Van-dwellers	8	4
21.—House-to-House Inspection—Number of Houses Inspected (excluding Housing Survey)	151	
Number of Inspections under Housing Survey...	335	
Houses Cleansed and Whitewashed		117
Defective Houses Repaired		228
Houses unfit for Human Habitation reported to M.O.H. under:—		
(a) Sec. 17, H.T.P. Act, 1909	9	9
(b) Sec. 28, H.T.P. Act, 1919	9	9

TABLE 5. NORTHAMPTON, 1920.
DRAIN EXAMINATION UNDER SECTION 41 OF THE PUBLIC HEALTH ACT, 1875.

SITUATION OF PREMISES.	RESULT OF EXAMINATION.	REMARKS.
Horsemarket, 65	Defective	House closed.
Newland, 22 & 24	Defective	Reconstructed.
St. Edmund's Street, 3, 4, 5, 6, & 7	Defective	Reconstructed.
St. Giles' Street, 28, 30, 32, & 34	Defective	Reconstructed.
St. Michael's Road, 60	Defective	Reconstructed.
Shakespeare Road, 22, 24, 26, & 28	Defective	Reconstructed.
No. of Drains examined.....		17

TABLE 6. NORTHAMPTON, 1920.
RECONSTRUCTION OF DRAINS.

SITUATION OF PREMISES.	NO. OF HOUSES.
Ambush Street, 4, 6	2
Bouverie Street, 2, 20, 22, 24	4
Byfield Road, 4, 6, 8, 10	4
Compton Street, 10, 12, 14, 16, 18, 20, 22, 24	8
Cromwell Street, 3, 5	2
Deal Street, 15, 17, 19, 21, 23.....	5
Grafton Place, 30.....	1
Hood Street, 59	1
Horsemarket, 30a, 30b	2
Hunter Street, 53	1
Lady's Lane, 33, 35	2
Liz Street, 22, 24, 26, 28, 30	5
Lorne Road, 15, 17, 19, 21	4
Margaret Street, 13, 15, 16, 17, 18, 19, 20, 22, 36.....	9
Mill Road, St. James', 1, 3	2
Newland, 24, 26, 28	3
Perry Street, 2, 3	2
Portland Street, 63	1
Regent Street, 26, 28, 30, 32, 34	5
Robert Street, 43, 45, 47, 49	4
St. Edmund's Street, 3, 4, 5, 6, 7	5
St. Giles' Street, 28, 30	2
Shakespeare Road, 22, 24, 26, 28	4
Spring Lane, 20, 22	2
Upper Priory Street, "Chequers Inn," 18, 20, 22, 24.....	5
York Road, 31	1
Wellingborough Road, 186, 188, 190, 192, 194, 196, 198, 200...	8
Total	94

TABLE 7. NORTHAMPTON, 1920.

UN SOUND FOOD VOLUNTARILY SURRENDERED AND DESTROYED.

NATURE OF FOOD.	WEIGHT.			
	TONS.	CWTS.	QRS.	LBS.
Home Killed Beef	27	12	2	3
Imported Beef	3	7	2	25
Home Killed Mutton	—	15	3	13
Imported Mutton	4	8	2	3
Home killed Pork	2	9	2	3
Imported Pork	—	12	0	16
Offal	1	4	0	2
Veal	—	4	1	11
Bacon	—	7	0	4
Sausages	—	1	0	26
Fish	3	16	2	26
Butter	—	—	1	3
Cheese	—	—	2	5
Fruit	—	9	0	17
Nuts	—	10	1	1
Total	45	19	3	18

Also :—5,079 Eggs ; 649 Rabbits ; 1,265 Tins of Food ; 1 Turkey.

TABLE 8. NORTHAMPTON, 1920.

UN SOUND FOOD. TOTAL QUANTITY DEALT WITH BY THE DEPARTMENT

METHOD OF OBTAINING POSSESSION.	WEIGHT.			
	TONS.	CWTS.	QRS.	LBS.
1 Seizure	—	—	3	22
664 Surrenders	45	19	3	18
Total ...	46	0	3	12

TABLE 9. NORTHAMPTON, 1915-1920.

UN SOUND FOOD. AMOUNT DEALT WITH BY THE DEPARTMENT IN
EACH YEAR.

YEAR.	WEIGHT.			
	TONS.	CWTS.	QRS.	LBS.
1915	27	14	2	27
1916	31	18	2	23
1917	25	19	2	21
1918	39	19	1	16
1919	66	6	3	1
1920	46	0	3	12

TABLE 10. NORTHAMPTON, 1920.

FOOD AND DRUGS. SAMPLES TAKEN FOR ANALYSIS.

(a) INFORMAL SAMPLES.

NATURE OF SAMPLE.	TOTAL NUMBER.	NUMBER NOT GENUINE.
Ammoniated Tincture of Quinine ...	3	2
Boiled Beef	1	—
Compound Liquorice Powder	4	—
Cornflour	2	—
Cream	11	3
Cream (preserved)	5	—
Cream of Tartar	4	2
Custard Powder	2	—
Dried Eggs	2	—
Epsom Salts	4	—
Ipecacuanha Wine	1	1
Lard	2	—
Margarine	7	—
Milk	1	—
Pearl Barley	1	—
Rice	1	—
Sago	1	—
Sweet Spirits of Nitre.....	1	—
Total	53	8

(b) OFFICIAL SAMPLES.

NATURE OF SAMPLE.	TOTAL NUMBER.	NUMBER NOT GENUINE.
Butter	2	—
Cream of Tartar	2	2
Dripping	3	2
Jam	3	—
Lard	3	—
Milk	116	14
Milk (Separated)	1	—
Sausages	3	—
Total	133	18

(c) ALL SAMPLES.

NATURE OF SAMPLE.	TOTAL NUMBER.	NUMBER NOT GENUINE.
Informal Samples	53	8
Official Samples	133	18
Total	186	26

TABLE II. NORTHAMPTON, 1910—1920.

ZYMOTIC DEATHS AND DEATH-RATES.

	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	Average 1910-1919	1920
Deaths	86	132	83	121	103	246	37	77	39	23	94.7	44
Death-rates .	0.90	1.46	0.92	1.33	1.13	2.72	0.43	0.93	0.48	0.26	1.06	0.48

TABLE 12. NORTHAMPTON, 1920.

ZYMOTIC DISEASES. DEATHS IN MUNICIPAL WARDS.

WARD	Smallpox	Measles	Scarlatina	Whooping Cough	Diphtheria	Typhoid Fever	Diarrhœa. (Under 2 years)	Total
Abington	I	I
Castle	6	...	4	...	...	3	13
Delapre
Kingsley
Kingsthorpe	I	I	...	...	2
North	I	...	2	I	...	I	5
St. Crispin's	I	...	I	2
St. Edmund's	I	...	...	2	...	2	5
St. James'	I	...	...	3	...	2	6
St. Lawrence's	4	...	I	...	...	...	5
St. Michael's	I	...	...	I	...	...	2
South	I	...	I	...	...	I	3
Borough	15	...	9	9	...	11	44

TABLE 13. NORTHAMPTON, 1898—1920.

MEASLES AND RUBELLA. TABLE SHOWING THE DEATHS AND DEATH-RATES.

Year.	Number of cases notified from the Public Elementary Schools; and in 1916-19 from Medical Practitioners.	Deaths.	Death-rate.
1898	542	33	0.54
1899	205	1	0.02
1900	637	21	0.34
*1901	314	5	0.06
1902	1157	43	0.49
1903	482	10	0.11
1904	22	1	0.01
1905	2184	15	0.17
1906	5	...	...
1907	1395	29	0.32
1908	16	3	0.03
1909	1797	29	0.32
1910	938	19	0.21
1911	42	...	...
1912	1316	44	0.49
1913	1314	37	0.41
1914	164	18	0.20
1915	2062	140	1.55
†1916	117	...	...
1917	2857	40	0.48
1918	209	2	0.02
1919	251	2	0.02
‡1920	1590	15	0.16

* Borough was extended in this year.

† Measles compulsorily notifiable in this year.

‡ Measles ceased to be notifiable.

TABLE 14. NORTHAMPTON, 1920.

MEASLES AND RUBELLA, AND WHOOPING COUGH. MONTHLY INCIDENCE AND MORTALITY.

MONTHS.	MEASLES AND RUBELLA.		WHOOPING COUGH.	
	CASES REPORTED†	DEATHS.	CASES REPORTED†	DEATHS.
January	77	—	44	—
February	75	—	43	1
March	91	—	25	3
April	22	—	19	1
May	112	1	10	1
June	593	4	24	1
July	612	7	23	—
August (holiday)...	—	3	—	1
September	1	—	3	—
October	1	—	—	—
November.....	4	—	2	—
December	2	—	5	1
Total	1590	15	198	9

†Reported from Public Elementary Schools.

TABLE 15. NORTHAMPTON, 1916—1920.

DIARRHŒA AND ENTERITIS. DEATHS AND DEATH-RATES IN EACH YEAR OF THE QUINQUENNium.

	1916	1917	1918	1919	1920
Deaths	10	11	7	3	11
Death-rate per 1,000					
Births	5.3	7.5	5.3	2.1	4.9
Death-rate per 1,000					
Living	0.12	0.13	0.09	0.03	0.12

TABLE 16. NORTHAMPTON UNION, 1901—1919.

VACCINIA. TABLE SHOWING THE NUMBER OF CHILDREN PER CENT. WHO HAVE NOT BEEN VACCINATED, AFTER DEDUCTING THE NUMBER DEAD BEFORE VACCINATION TOOK PLACE.

YEAR.	PROPORTION PER CENT.	YEAR.	PROPORTION PER CENT.
1901	66.6	1911	82.3
1902	58.7	1912	84.7
1903	62.9	1913	80.1
1904	76.2	1914	82.7
1905	66.8	1915	83.8
1906	67.1	1916	83.8
1907	76.8	1917	83.7
1908	78.3	1918	83.0
1909	80.5	1919	83.6
1910	81.8		

TABLE 17. NORTHAMPTON, 1911—1920.

SCARLATINA.

Year.	Notifi- cations.	Attack Rates per 1,000.	Deaths.	Death-rates	Fatality.	Numbers Removed to Hospital.	Removal rates per cent.
1911	136	1.51	...	...	...	108	79.4
1912	279	3.08	1	0.01	0.3	229	82.1
1913	435	4.79	6	0.07	1.4	282	64.8
1914	365	4.02	2	0.02	0.5	226	61.9
1915	681	7.54	8	0.09	1.2	335	49.5
1916	262	3.04	2	0.02	0.8	187	71.4
1917	59	0.71	...	...	...	37	62.7
1918	37	0.46	1	0.01	2.7	26	70.3
1919	71	0.80	...	...	...	44	62.0
1920	62	0.66	...	...	...	49	79.0

Figures given in this Table refer to notifications received without reference to corrected diagnosis, but are exclusive of military cases.

TABLE 18. NORTHAMPTON, 1920.

SCARLATINA. INCIDENCE OF NOTIFIED CASES OF THE DISEASE IN CERTAIN AGE GROUPS.

	Under 1 Year	From 1 to 5 years	From 5 to 15 years	From 15 to 25 years	25 and over	Total
Males	6	25	1	1	33
Females	...	5	20	2	2	29
Total	11	45	3	3	62

TABLE 19. NORTHAMPTON, 1911—1920.

TYPHOID FEVER.

Year.	Notifica- tions.	Attack Rates per 1,000.	Deaths.	Death- rates.	Fatality.	Numbers removed to Hospital.	Removal rates per cent.
1911	53	0.59	11	0.12	20.7	40	77.4
1912	16	0.18	2	0.02	12.5	12	75.0
1913	27	0.30	4	0.04	14.8	15	55.6
1914	28	0.31	...	...	...	19	67.9
1915	18	0.20	5	0.05	27.8	13	72.2
1916	8	0.09	1	0.01	12.5	4	50.0
1917	6	0.07	1	0.01	16.7	3	50.0
1918	7	0.09	...	...	...	7	100.0
1919	3	0.03	...	...	...	1	33.3
1920	1	0.01	...	...	...	1	100.0

Figures given in this Table refer to notifications received without reference to corrected diagnosis, but are exclusive of military cases.

TABLE 20. NORTHAMPTON, 1911—1920.
DIPHTHERIA.

Year.	Notifica- tions.	Attack Rates per 1,000.	Deaths.	Death- rates.	Fatality.	Numbers removed to Hospital.	Removal rates per cent.
1911	69	0.76	14	0.15	20.3	53	76.8
1912	63	0.70	12	0.13	19.0	42	66.7
1913	119	1.31	27	0.30	22.7	71	59.7
1914	236	2.59	37	0.41	15.7	124	52.5
1915	309	3.42	43	0.47	13.9	142	45.9
1916	136	1.58	16	0.20	11.8	102	75.0
1917	95	1.10	19	0.23	20.0	68	71.6
1918	74	0.90	13	0.16	17.6	53	71.6
1919	99	1.11	10	0.11	10.1	77	77.7
1920	202	2.18	9	0.10	4.4	144*	71.3

Figures given in this Table refer to notifications received without reference to corrected diagnosis, but are exclusive of military cases.

*Includes 4 removals to General Hospital.

TABLE 21. NORTHAMPTON, 1920.

DIPHTHERIA. DISTRIBUTION OF NOTIFIED AND PRESUMABLY GENUINE CIVIL CASES THROUGHOUT THE MUNICIPAL WARDS.

	Abington	Castle	Delapre	Kingsley	Kingsthorpe	North	St. Crispin's	St. Edmund's	St. James'	St. Lawrence	St. Michael's	South	Total
Notified Cases	5	12	11	16	20	20	20	15	26	15	24	18	202
Presumably Genuine Cases	5	12	11	16	20	20	20	15	24	14	24	9	190

TABLE 22. NORTHAMPTON, 1920.

DIPHTHERIA. GENUINE NORTHAMPTON CIVIL CASES. AGE AND SEX DISTRIBUTION.

	Un- der 1	1 to 2	2 to 3	3 to 4	4 to 5	Total under 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and over	Total
Males ...	2	3	6	8	9	28	52	6	1	...	...	87
Females	...	3	2	9	9	23	59	11	8	2	...	103
Total ...	2	6	8	17	18	51	111	17	9	2	...	190

TABLE 23. NORTHAMPTON, 1911-1920.

PUERPERAL FEVER. CASES NOTIFIED, DEATHS REGISTERED AND FATALITY OF THE DISEASE IN EACH OF THE LAST TEN YEARS.

YEAR.	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	TOTAL.
Cases	5	4	2	6	7	6	1	3	3	13*	50
Deaths	3	...	...	4	3	3	1	3	...	5	22
Fatality	60	...	...	67	43	50	100	100	...	38	44

*Includes one fatal case which escaped notification.

TABLE 24. NORTHAMPTON, 1920.
TUBERCULOSIS DEATHS. SHOWING THE PERIOD ELAPSING BETWEEN
NOTIFICATION AND DEATH.

PERIOD BETWEEN NOTIFICATION AND DEATH.	M.	F.	TOTAL.
(1) PULMONARY TUBERCULOSIS :—			
Not notified	2	5	7
One month	7	5	12
1—6 months	14	8	22
6—12 months	7	6	13
12—18 months	6	2	8
18—24 months	2	3	5
24—36 months	6	—	6
3 years and over	14	11	25
Total	58	40	98
(2) TUBERCULOSIS OTHER THAN PULMONARY :—			
Not notified	3	2	5
Notified after death	1	—	1
One month	1	1	2
1—6 months	—	—	—
6—12 months	1	—	1
12—18 months	—	—	—
18—24 months	1	—	1
24—36 months	—	—	—
3 years and over	2	—	2
Total	9	3	12

TABLE 25. NORTHAMPTON, 1920.

BOROUGH HOSPITAL, HARBOROUGH ROAD. CASES OF COMMUNICABLE DISEASE UNDER TREATMENT DURING THE YEAR.

	Scarlat- ina.	Diph- theria.	Typhoid Fever.	Measles.	Other.	Total.
No. remaining from 1919 ...	11	13	—	—	—	24
No. admitted during 1920 ...	49	144†	1	12*	1‡	207
No. discharged during 1920 ...	52	133†	1	12*	1‡	199
No. died during 1920	—	4	—	—	—	4
No. remaining at end of 1920 ...	8	20	—	—	—	28

*7 of these were military cases.
†Includes one military case.
‡One military case of erysipelas.

TABLE 26. NORTHAMPTON, 1920.

BOROUGH HOSPITAL, HARBOROUGH ROAD. SCARLATINA AND DIPHTHERIA. RECORD OF THE COMPLICATIONS WHICH OCCURRED AMONGST THE GENUINE CASES IN WHICH TREATMENT WAS COMPLETED DURING THE YEAR.

DISEASE.	No. of Genuine Cases.	Otorrhœa.			Rhinorrhœa.	Adenitis.	Glandular Abscess.	Mastoid Abscess.	Arthritis.	Albuminuria.	Nephritis.	Secondary Sore Throat.	Relapse (reinfection).	Other.	Total number of Cases with Complications.
		Double.	Right only.	Left only.											
Scarlatina ...	52	—	1	—	—	1	—	—	—	1	—	—	1	1	5
Diphtheria ...	134	—	—	—	2	6	—	—	—	9	1	—	—	6	24

TABLE 28. NORTHAMPTON, 1920. METEOROLOGICAL DATA.

MONTH.	RAINFALL.				TEMPERATURE.						DIRECTION OF WIND.				Quarters.
	Total inches.	Greatest in 24 hours.		Days in which 0.01 in. or more fell.	Mean.	Maximum.		Minimum.		No. of Nights at or below 32 deg.	S. W. Quadrant including W. Days.	S. E. Quadrant including S. Days.	N. E. Quadrant including E. Days.	N. W. Quadrant including N. Days.	
		Depth.	Date.			Deg.	Date.	Deg.	Date.						
January ...	2.45	0.43	28	16	41.24	55.6	16	22.3	7	7	17	4	4	6	First.
February	0.69	0.30	20	12	43.62	60.3	18	26.2	5	10	16	4	2	7	
March	2.14	0.89	14	15	45.76	70.1	22	28.2	8	4	18	5	...	8	
April	5.00	1.08	9	26	47.84	61.3	23	35.6	30	...	11	5	4	10	Second.
May	1.22	0.23	11	16	56.35	82.0	25	35.4	5	...	17	7	4	3	
June	2.08	0.58	27	11	59.78	82.6	17	36.3	9	...	11	8	5	6	
July	2.69	0.45	6 } 25 }	22	59.08	71.6	20	44.8	25	...	20	3	...	8	Third.
August ...	0.79	0.25		9	57.96	74.8	15	43.1	27	...	11	1	4	15	
September	1.77	0.30	15	15	56.55	75.3	12	37.8	20	...	10	4	4	12	
October ...	1.08	0.32	31	11	51.05	73.0	7	28.5	30	3	6	12	12	1	Fourth.
November	1.50	0.82	27	15	42.91	58.2	14	22.5	22	8	14	9	3	4	
December	2.21	0.49	29	22	39.95	55.8	2	9.7	13	10	13	3	10	5	
Year 1920	23.62	1.08	Apl. 9	190	50.17	82.6	Jun. 17	9.7	Dec. 13	42	164	65	52	85	

TABLE 29. NORTHAMPTON, 1920.

NUMBER OF ARTICLES DISINFECTED BY STEAM AT DISINFECTING STATION
EACH MONTH.

FOR CIVIL POPULATION.

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
642	602	611	491	464	567	560	430	398	440	417	509	6131

FOR MILITARY POPULATION.

5	14	56	150	135	125	68	27	...	12	592
---	----	----	-----	-----	-----	----	----	-----	----	-----	----	-----

TOTAL.

647	616	667	641	599	692	628	430	398	467	417	521	6723
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------

TABLE 30. ENGLAND AND WALES AND NORTHAMPTON, 1916-1920.
INFANT MORTALITY. COMPARISON BETWEEN THE YEARS OF THE QUIN-
QUENNIUM.

(From the figures of the Registrar General).

	INFANT MORTALITY.				
	1916	1917	1918	1919	1920
England and Wales	91	97	97	89	80
Great Towns (including London)	99	104	106	93	85
Smaller Towns	90	93	94	90	80
London	89	103	107	85	75
Northampton	67	87	92	82	74

TABLE 31. NORTHAMPTON, 1881-1920.
BIRTH-RATE AND INFANT MORTALITY DURING THE FORTY YEARS.

Year.	Birth-rate.	Infant Death-rate.	Year.	Birth-rate.	Infant Death-rate.
1881	37.2	150.3	1901	26.9	142.4
1882	38.0	161.8	1902	26.0	132.4
1883	36.0	132.2	1903	25.0	137.2
1884	35.2	186.3	1904	23.9	132.7
1885	33.6	155.1	1905	21.9	123.4
1886	33.9	153.5	1906	22.4	120.9
1887	32.4	174.8	1907	22.0	120.1
1888	33.5	146.3	1908	22.9	96.9
1889	32.9	176.4	1909	21.9	109.9
1890	31.7	174.7	1910	21.1	110.0
1891	34.5	164.2	1911	21.4	129.5
1892	30.6	145.4	1912	21.4	72.3
1893	30.0	173.1	1913	20.6	93.7
1894	30.3	136.1	1914	20.4	88.3
1895	31.5	145.8	1915	19.3	134.2
1896	29.4	150.6	1916	20.2	67.1
1897	28.6	184.3	1917	16.0	87.0
1898	27.7	181.2	1918	14.4	92.2
1899	27.3	151.4	1919	15.3	82.2
1900	25.2	144.8	1920	24.2	73.8

TABLE 32. NORTHAMPTON, 1911-1920. INFANT MORTALITY.

CAUSES OF DEATH.	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
Marasmus, Inanition, Debility & Atrophy	41	23	27	21	37	17	19	17	21	31
Convulsions	7	6	10	5	10	3	4	4	2	8
Bronchitis and Pneumonia.....	36	26	20	33	63	26	35	37	33	31
Whooping Cough	2	7	4	...	6	4	1	6	2	5
Measles .....	...	8	9	6	20	...	9	...	...	2
Premature Birth	38	31	42	33	34	39	25	28	34	47
Diarrhoea, Enteritis and Gastritis	82	12	36	33	29	10	11	9	2	14
All other causes	44	27	27	33	37	28	24	20	22	28
TOTAL DEATHS	250	140	175	164	236	127	128	121	116	166
TOTAL BIRTHS	1930	1935	1868	1857	1754	1893	1471	1313	1411	2248
INFANT MORTALITY	129.5	72.3	93.7	88.3	134.2	67.1	87.0	92.2	82.2	73.8

TABLE 33. NORTHAMPTON, 1920.

INFANT MORTALITY. DEATHS FROM CERTAIN GROUPS OF DISEASES.

	Number.	Proportion per cent.
Common Infections	7	4.2
Diarrhoeal Diseases	14	8.4
Premature Birth	47	28.3
Wasting Diseases	31	18.7
Tuberculous Diseases	1	0.6
All Other Causes	66	39.8
Total	166	100.0

TABLE 34. NORTHAMPTON, 1920.

COMPARISON BETWEEN THE NUMBER OF BIRTHS WHICH WERE REGISTERED
AND THOSE WHICH WERE NOTIFIED.

	M.	F.	TOTAL.
Number of Births Registered	1201	1047	2248
Number of Births Notified	1150	1030	2180
Number of Live Births Notified	1112	982	2094

TABLE 35. NORTHAMPTON, 1920.

NOTIFICATION OF BIRTHS. SOURCES OF NOTIFICATION.

	Number.	Proportion per cent.
Medical Practitioners	754	34.6
Certified Midwives	1369	62.8
Parents and Others	57	2.6
Total ...	2180	100.0

TABLE 36. NORTHAMPTON, 1920.

NOTIFICATION OF BIRTHS. NUMBER AND CLASSIFICATION OF NOTIFIED AND
NON-NOTIFIED CASES OF BIRTH, THE CIRCUMSTANCES ATTENDING WHICH
WERE THE SUBJECT OF INVESTIGATION.

Classification.	LIVE BIRTHS.								STILLBIRTHS.							
	MATURE.				PREMATURE.				MATURE.				PREMATURE.			
	Single.		Multiple.		Single.		Multiple.		Single.		Multiple.		Single.		Multiple.	
	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.
	1759	47	31	2	67	6	22	2	41	2	3	—	11	2	8	—
	1806		33		73		24		43		3		13		8	
	1839				97				46				21			
	1936								67							
Totals.	2003															

TABLE 37. NORTHAMPTON, 1916-1920.

NOTIFICATION OF BIRTHS. COMPARISON OF CERTAIN FIGURES SHOWING
THE CONDITIONS IN THE FIVE YEARS.

	1916		1917		1918		1919		1920		FIVE YEARS 1916-1920	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Total number of cases investigated	1402	—	1116	—	989	—	1089	—	2003	—	6599*	—
Stillbirths ...	45	3.2	33	2.9	39	3.9	44	4.0	67	3.3	228	3.5
Premature Births	77	5.5	82	7.4	80	8.1	79	7.3	118	5.9	436	6.6
Multiple Births	44	3.1	28	2.5	23	2.3	56	5.1	68	3.4	219	3.3
Illegitimate Births	72	5.1	54	4.8	64	6.4	70	6.4	61	3.0	321	4.9

*This figure is inclusive of non-notified cases which were the subject of investigation, but exclusive of all notified cases which were not investigated

TABLE 38. NORTHAMPTON, 1910-1920.

NOTIFICATION OF BIRTHS. COMPARATIVE FIGURES SHOWING CERTAIN
CONDITIONS IN THE HOUSEHOLDS OF INVESTIGATED CASES.

	1917	1918	1919	1920	ELEVEN YEARS. 1910-1920
No. of Investigations*	1048	913	992	1895	14,337
Instances in which members of more than one family were living together	278	279	458	881	4,233
Proportion of such (per cent.)	26.5	30.5	46.2	46.5	29.5
Instances in which there were more than two persons per sleeping room	182	178	213	411	4,692
Proportion of such (per cent.)	17.4	19.5	21.5	21.7	32.7
Instances in which there were more than three persons per sleeping room	23	15	29	37	1,298
Proportion of such (per cent.)	2.2	1.6	2.9	1.9	9.0

*This corresponds to the number of separate confinements in which the circumstances were investigated, exclusive of cases of illegitimate birth.

TABLE 39. NORTHAMPTON, 1920.
MIDWIVES ACTS. NOTIFICATIONS RECEIVED FROM MIDWIVES.

NATURE OF REPORT.	MIDWIVES NOTIFYING.	NO. OF REPORTS.	REMARKS.
Records of Sending for Medical Help	21	277	Mother's condition 198 Infant's condition 79
Notifications of Stillbirth	8	39	Full Term .....20 Premature .....19
Notifications of Death	4	6	Mothers 0 Infants 6
Notifications of Artificial Feeding	7	32	Mother's condition 31 Infant's condition 1
Total	22	354	—

TABLE 40. NORTHAMPTON, 1920.
MATERNITY AND INFANT WELFARE CENTRES. STATISTICS.

CENTRE.	DAY AND TIME OF MEETING.	AVERAGE ATTENDANCE PER WEEK.			Average Number consulting Doctor per Session.
		Mothers (incl. Expectant Mothers).	Expectant Mothers.	Babies and Toddlers.	
Abington Avenue ... (opened May 4th ; formerly Mount Pleasant)	Tuesdays, 2.30—4.30 ...	78	6	74	—
Agnes Road	Wednesdays, 2.30—4.30	64	5	72	10
Commercial Street ...	Fridays, 2.30—4.30.....	37	3	38	11
Doddridge Memorial (opened 19th November, 1919)	Tuesdays, 2.30—4.30 ...	67	5	59	11
Far Cotton	Tuesdays, 2.30—4.30 ...	45	3	38	12
King Street	Wednesdays, 2.30—4.30	62	5	53	10
Kingsthorpe	Tuesdays, 2.30—4.30 ...	36	1	26	10
St. Edmund's	Fridays, 2.30—4.30.....	62	5	48	14
(opened Nov. 19th ; formerly Victoria Road)					
	Total	451	33	408	78

TABLE 41. NORTHAMPTON, 1920.

HOUSING, TOWN PLANNING, &C. ACT, 1909. HOUSES REPRESENTED BY THE MEDICAL OFFICER OF HEALTH PREVIOUS TO 1920, BUT NOT FINALLY DEALT WITH BEFORE THIS YEAR BEGAN. ACTION TAKEN DURING 1920 AND CONDITION AT THE END OF THE YEAR.

HOUSES.	DATE OF			REMARKS.
	Representa- tion	Closing Orders.	Demolition Orders.	
Bearward Street, 31 ...	24-9-19	1-12-19	—	Operation of Closing Order postponed. Inhabited.
Bearward Street, 36 ...	19-2-19	2-6-19	—	Operation of Closing Order postponed. Used as Warehouse.
Bridge Street, Court VII. (Fox's Yard), 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, & 11	19-9-17	—	—	Consideration of Closing Orders postponed. Inhabited.
Bridge Street, Court XI., 2 houses	21-4-15	5-7-15	3-7-16	Closed, but not demolished.
Chapel Place, 11, 12, & 13	24-9-19	—	—	Consideration of Closing Orders postponed. No 11 occupied only.
Chapel Place, 14, 15, 16, 17, 18, & 19	16-10-19	—	—	Consideration of Closing Orders postponed. Nos. 15 & 16 occupied only.
Freeschool Street, 18 & 20	21-10-14	1-3-15	4-10-15	Closed, but not demolished.
Freeschool Street, 28 ...	25-9-12	2-12-12	7-7-13	Closed, but not demolished.
Green Street, 58, 60, & 62	23-4-19	28-7-19	—	Operation of Closing Orders postponed. Inhabited.
King Street, 10 & 11 ...	17-12-19	8-3 20	—	Operation of Closing Orders postponed. No. 10 occupied ; No. 11 used as store.

TABLE 4I—*continued.*

HOUSES.	DATE OF			REMARKS.
	Representa- tion.	Closing Orders.	Demolition Orders.	
King Street, Court I., 1 & 2	19-3-13	2-6-13	—	Consideration of making Demolition Orders postponed. Purchased by Corporation in connection with School Clinic and Feeding Centre. Standing Closed.
Leicester Street, 6, 8, & 10	17-12-19	—	—	Consideration of Closing Orders postponed. Occupied.
Market Street, 57 & 59	26-5-15	26-7-15	3-7-16	Demolished.
Nelson Street, 17 & 18	19-11-19	—	—	Consideration of Closing Orders postponed. Inhabited.
Newland, 56	23-1-18	2-6-19	—	Operation of Closing Orders postponed. Inhabited.
St. Mary's Street, 4 & 6	31-10-12	10-2-13	8-1-14	Closed, but not demolished.

TABLE 42. NORTHAMPTON, 1920.

HOUSING, TOWN PLANNING, &C. ACT, 1909. HOUSES REPRESENTED BY THE MEDICAL OFFICER OF HEALTH DURING THE YEAR. SUBSEQUENT ACTION AND CONDITION AT THE END OF THE YEAR.

HOUSES.	DATE OF			REMARKS.
	Representa- tion.	Closing Orders.	Demolition Orders.	
Freeschool Street, 22, 24, & 26	21-1-20	7-6-20	—	Operation of Closing Orders postponed. Inhabited.
Manor Road, 7	21-1-20	—	—	Consideration of Representation deferred pending report as to action taken by Borough Engineer.
Paradise Row, 1 & 2 ...	24-3-20	—	—	Dealt with under Public Health Acts.
Swan Street, 23, 25, & 27	24-3-10	—	—	Consideration of Closing Orders postponed. Inhabited.

TABLE A. (L.G.B. TABLE I.)

COUNTY BOROUGH OF NORTHAMPTON.

Vital Statistics during 1920 and previous Years.

Year.	Popula- tion esti- mated to Middle of each Year.	Births.			Total Deaths registered in the District.		Transferable Deaths.		Nett Deaths belonging to the District.			
		Un- corrected Number.	Nett.		Number.	Rate.	Non- residents registered in the District.	Resi- dents not registered in the District.	Under 1 Year of Age		At all Ages.	
			Number.	Rate.					Number.	Rate per 1000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1915	90296	1748	1754	19.3	1562	17.3	109	83	236	134.2	1536	17.0
1916	86128	1883	1893	20.2	1206	14.0	116	58	127	67.1	1148	13.3
1917	82471	1466	1471	16.0	1217	14.7	128	86	128	87.0	1175	14.2
1918	81113	1316	1313	14.4	1426	17.6	122	81	121	92.2	1385	17.1
1919	88944	1432	1411	15.3	1301	14.6	137	54	116	82.2	1218	13.7
1920	92488	2318	2248	24.2	1137	12.3	130	40	166	73.8	1047	11.3

This Table is arranged to show the gross births and deaths in the district and the births and deaths properly belonging to it with the corresponding rates.

In Column 6 are included the whole of the deaths registered during the year as having actually occurred within the district, but excluding the deaths of soldiers and sailors that have occurred in Hospitals and Institutions in the district. Such deaths are as follows :—

YEAR.	NO. OF DEATHS.
1915	24
1916	33
1917	13
1918	69
1919	9
1920	1

Area of District in acres (land and inland water)	...	...	3,469
Total Population at all ages	...	...	90,064
Total families or separate occupiers	...	...	19,650
			} At Census 1911.

(Figures given in Census special volume for the County, also in Vol. I., VI. and VIII. of the reports of the Census of England and Wales)

TABLE B. (L.G.B. TABLE II.)

COUNTY BOROUGH OF NORTHAMPTON.

Cases of Infectious Diseases notified during the Year 1920.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								TOTAL CASES NOTIFIED IN EACH WARD.											Total Cases removed to Borough Hospitals		
	At all Ages.	At Ages—Years.							Abington	Castle	Delapre	Kingsley	Kingsthorpe	North	St. Crispin's	St. Edmund's	St. James'	St. Lawrence's	St. Michael's		South	
		under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and up- wards														
Smallpox
Cholera
Plague
Diphtheria	202	3	54	114	18	10	3	...	5	12	11	16	20	20	20	15	26	15	24	18	140	
Erysipelas	45	...	...	2	2	12	22	7	1	10	1	3	7	1	5	3	8	1	5	...	...
Scarlatina	62	...	11	45	3	3	...	...	8	4	2	2	4	6	1	10	11	2	7	5	49
Typhus Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhoid Fever	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Relapsing Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	12	...	...	...	4	8	...	...	1	2	...	1	1	1	...	1	...	2	...	3	...
Cerebro-spinal Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Poliomyelitis .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ophthalmia Neonatorum	28	28	...	...	...	...	...	...	...	5	...	2	2	6	2	3	3	1	1	3	...
Pulmonary Tuberculosis	205	...	1	20	45	104	30	5	13	29	10	8	17	34	16	13	16	14	18	17	90	
Other Forms of																						
Tuberculosis	32	1	4	12	8	6	1	...	2	4	1	...	2	6	4	2	2	2	3	4	...	
Pneumonia	135	8	24	26	19	35	17	6	4	32	5	3	10	20	10	6	25	3	10	7	...	
Encephalitis Lethargica ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Polio-encephalitis .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaria (contracted abroad)	12	...	...	...	...	12	...	...	1	1	...	1	...	1	3	1	...	1	1	2	...
Totals	734	40	94	219	100	190	73	18	35	99	30	36	63	95	61	54	91	41	69	60	280	

The above figures are exclusive of cases notified amongst the Military, but take no account of corrections in diagnosis.

Isolation Hospitals—(1) Harborough Road (Infectious Diseases); (2) Welford Road (Tuberculosis); (3) Near Hardingstone (Smallpox).

Total Available Beds—about 120. Sanatorium—County Sanatorium, Creaton, Northamptonshire—60 Beds (20 for Northampton County Borough).

TABLE C. (L.G.B. TABLE III.)

COUNTY BOROUGH OF NORTHAMPTON.

Causes of and Ages at Death during the Year 1920.

CAUSES OF DEATH.					NETT DEATHS AT THE SUBJOINED AGES OF " RESIDENTS " WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.									Total Deaths whether of Residents or Non- Residents in Institutions in the District.
					ALL AGES	Under 1 year	1 and under 2 years	2 and under 5 years	5 and under 15 years	15 and under 25 years	25 and under 45 years	45 and under 65 years	65 and up- wards	
ALL CAUSES	(Certified	...	...	...	1038	163	15	34	29	59	138	225	375	310
	(Uncertified	...	...	...	9	3	...	...	...	...	...	1	5	...
1. Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2. Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Measles	...	...	...	...	15	2	7	6	...	...	...	...	...	...
4. Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5. Whooping Cough	...	...	...	...	9	5	1	2	1	...	...	...	...	...
6. Diphtheria	...	...	...	...	9	...	...	5	3	...	...	1	...	4
7. Influenza	...	...	...	...	19	...	...	...	1	...	7	3	8	1
8. Erysipelas	...	...	...	...	1	...	...	...	...	...	...	1	...	1
9. Phthisis (Pulmonary Tuberculosis)	...	...	...	...	98	...	...	...	6	20	47	23	2	13
10. Tuberculous Meningitis	...	...	...	...	3	1	...	...	1	1	...	...	...	3
11. Other Tuberculous Diseases	...	...	...	...	9	...	...	...	2	3	1	2	1	6
12. Cancer, Malignant Disease	...	...	...	...	102	...	...	1	1	1	3	48	48	27
13. Rheumatic Fever	...	...	...	...	5	...	...	...	2	2	...	...	1	...
14. Meningitis	...	...	...	...	3	...	...	2	...	1	...	...	...	2
15. Organic Heart Disease	...	...	...	...	127	...	...	...	5	9	23	46	44	35
16. Bronchitis	...	...	...	...	99	20	1	4	...	2	6	17	49	10
17. Pneumonia (all forms)	...	...	...	...	58	11	6	6	...	7	11	11	6	6
18. Other Diseases of Respiratory Organs	...	...	...	...	5	...	...	...	...	...	...	5	...	4
19. Diarrhoea and Enteritis	...	...	...	...	11	11	...	...	...	...	...	...	...	4
20. Appendicitis and Typhlitis	...	...	...	...	5	...	...	...	2	1	...	1	1	9
21. Cirrhosis of Liver	...	...	...	...	4	...	...	...	...	...	...	3	1	...
21a. Alcoholism	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22. Nephritis and Bright's Disease	...	...	...	...	18	...	...	1	2	2	5	6	2	8
23. Puerperal Fever	...	...	...	...	5	...	...	...	...	...	5	...	...	8
24. Other Accidents and Diseases of Preg- nancy and Parturition	...	...	...	...	1	...	...	...	...	...	1	...	...	1
25. Congenital Debility and Malformation, including Premature Birth	...	...	...	...	89	89	...	...	...	...	...	...	...	12
26. Violent Deaths, excluding Suicide	...	...	...	...	18	1	...	6	1	2	1	4	3	21
27. Suicide	...	...	...	...	13	...	...	...	...	1	4	5	3	...
28. Other Defined Diseases	...	...	...	...	318	26	...	1	2	6	24	49	210	135
29. Diseases ill-defined or unknown	...	...	...	...	3	...	...	...	...	1	...	1	1	...
TOTALS	...	...	...	...	1047	166	15	34	29	59	138	226	380	310
Sub- entries included in above figures.	14 (a) Cerebro-spinal Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...
	17 (a) Broncho-pneumonia	...	...	...	24	10	5	6	...	1	...	1	1	3
	28 (a) Poliomyelitis	...	...	...	...	...	...	...	...	...	...	...	...	...
	(b) Senile Decay	...	...	...	120	...	...	...	...	...	1	1	118	36
	(c) Apoplexy	...	...	...	67	...	...	...	...	...	3	17	47	13

TABLE D. (L.G.B. TABLE IV.)

COUNTY BOROUGH OF NORTHAMPTON.

INFANT MORTALITY DURING THE YEAR 1920.

Nett Deaths from stated Causes at various Ages under One Year of Age.

CAUSES OF DEATH.						Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 4 weeks	4 weeks and under 3 months	3 months and under 6 months	6 months and under 9 months	9 months and under 12 months	Total Deaths under 1 year
ALL CAUSES	Certified	...	...	...	...	46	13	16	8	83	31	24	13	12	163
	Uncertified	...	...	...	...	2	...	...	...	2	...	...	...	1	3
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chickenpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	1	...	3	1	5
Diphtheria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions	...	...	...	...	...	4	1	1	...	6	...	1	...	1	8
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	...	...	...	...	...	2	2	4	5	7	2	2	20
Pneumonia (all forms)	...	...	...	...	...	1	1	...	...	2	3	1	3	2	11
Diarrhoea	...	...	...	...	...	...	...	...	...	...	3	...	1	...	4
Enteritis	...	...	...	...	...	...	...	1	...	1	5	1	...	...	7
Gastritis	...	...	...	...	...	...	...	...	...	...	1	...	...	2	3
Syphilis	...	...	...	...	...	...	1	...	...	1	1	...	...	1	3
Rickets	...	...	...	...	...	...	...	...	...	...	1	...	1	...	2
Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth	...	...	...	...	...	2	...	...	...	2	...	...	...	...	2
Atelectasis	...	...	...	...	...	3	...	...	...	3	...	...	...	...	3
Congenital Malformations	...	...	...	...	...	2	5	1	...	8	2	1	...	...	11
Premature Birth	...	...	...	...	...	28	5	8	2	43	2	2	...	...	47
Atrophy, Debility and Marasmus	...	...	...	...	...	6	...	3	2	11	7	10	1	2	31
Other Causes	...	...	...	...	...	2	...	...	2	4	...	1	...	1	6
Totals	...	...	...	...	...	48	13	16	8	85	31	24	13	13	166

Nett Births { legitimate ... 2,160
 Registered { illegitimate ... 88
 Total 2,248

Nett Deaths { legitimate infants ... 149
 Registered { illegitimate infants ... 17
 Total ... 166

TABLE E. NORTHAMPTON, 1920
TUBERCULOSIS. (Copy of Report sent to Ministry of Health) SUMMARY OF NOTIFICATIONS DURING THE PERIOD FROM THE 4TH JANUARY, 1920, TO THE 1ST JANUARY, 1921, IN THE COUNTY BOROUGH OF NORTHAMPTON.

AGE PERIODS.	Notifications on Form A.											Notifications on Form B. †				Number of Notifi- cations on Form C.				
	Number of Primary Notifications.*											Number of Primary Notifications.*				Total Notifi- cations Form B.	Poor Law In- stitu- tions.	Sana- toria.		
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and up- wards	Total Primary Notifica- tions.	Total Notifi- cations Form A.	under 5	5 to 10				10 to 15	Total Primary Notifica- tions.
Cols. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Pulmonary Males	...	...	3	...	8	16	39	21	14	7	4	112	120	...	3	3	6	6	1	38
” Females	...	1	5	3	4	17	24	20	7	2	1	84	89	...	2	1	3	3	...	26
Non-pulmonary Males	1	...	1	2	1	3	2	3	...	...	...	13	14	...	3	...	3	3	...	...
” Females	...	3	3	...	1	3	1	...	1	...	...	12	12	1	2	1	4	4	...	...

Patients notified as suffering from both pulmonary and non-pulmonary disease are included among the "pulmonary" returns only.
*PRIMARY NOTIFICATIONS relate to patients who have not previously been notified in this or former years, either on Form A or on Form B, in the area to which the return relates. Any additional notification of a case which has been previously notified in the area is regarded as duplicate.

†A School Medical Inspector, or the Medical Officer of Health of a county, county borough, or other district, if acting as a School Medical Inspector, is required to notify on Form B all cases of tuberculosis discovered in the course of inspection of children attending public elementary schools whether or not these have previously been notified.

Cols. 2—13. Only those cases which have been notified for the first time during the year on Form A in the area concerned, and which have never previously been notified in the area, either on Form A or on Form B, are included in these columns.

Col. 14. The object of this column is to show the extent to which duplicate notification of the same case occurs on Form A, and all notifications on Form A, whether duplicate or not, are included in this column.

Cols. 15—18. Only those cases which have been notified for the first time during the year on Form B in the area concerned, and which have never previously been notified in the area, either on Form A or on Form B, are included in these columns.

Col. 19. All notifications which have been made during the year on Form B in the area concerned, whether the cases have previously been notified in the area, or not, either on Form A or on Form B, are included in this column.

Col. 21. Only notifications on Form C made by the Medical Officers of Sanatoria, as defined in the Tuberculosis Regulations, 1912, are entered in this column.

REPORT ON THE

Administration of the FACTORY & WORKSHOP ACT, 1901, in connection with

Factories, Workshops, Workplaces and Homework.

1.—INSPECTION.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
FACTORIES (Including Factory Laundries)	10	4	...
WORKSHOPS (Including Workshop Laundries)	269	26	...
WORKPLACES (Other than Outworkers' Premises)	8	1	...
OUTWORKERS' PREMISES	291	36	...
Total	578	67	...

2.—DEFECTS FOUND.

Particulars. (1)	Number of Defects.			Number of Prosecu- tions. (5)
	Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	
<i>Nuisances under the Public Health Acts :—*</i>				
Want of Cleanliness.....	37	37	...	...
Want of Ventilation .....	...	...	...	...
Overcrowding	1	1	...	...
Want of Drainage of Floors .....	...	...	...	...
Other Nuisances	9	9	...	...
Sanitary Accommodation	insufficient	2	1	...
	unsuitable or defective ...	2	2	...
	not separate for sexes.....	...	...	...
<i>Offences under the Factory and Workshop Acts :—</i>				
Illegal occupation of underground bakehouse (s. 101)	...	...	...	...
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	38	38	...	...
Other Offences .....	...	...	...	...
(Excluding offences relating to outwork which are included in Part 3 of this Report)				
Total	89	88	...	...

*Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

3.—HOMEWORK.

NATURE OF WORK. (1)	OUTWORKERS' LISTS, SECTION 107.									OUTWORK IN UNWHOLE-SOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
	Lists received from Employers.						Notices served on Occupiers as to keeping or sending lists. (8)	Prosecutions.		Instances. (11)	Notices served. (12)	Prosecutions. (13)	Instances. (14)	Orders made (S. 110). (15)	Prosecutions (Sections 109, 110). (16)
	Sending twice in a year.			Sending once in the year.				Failing to keep or permit inspection of lists. (9)	Failing to send lists. (10)						
	Lists. (2)	Outworkers.		Lists. (5)	Outworkers.										
		Con-tractors. (3)	Work-men. (4)		Con-tractors. (6)	Work-men. (7)									
WEARING APPAREL :— (1) Making, etc.	14	8	38	42	22	180	...	...	...	2	2	...	3	3	...
Furniture and Upholstery .....	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...

There are no Outworkers in any of the other trades usually shown in the above table.

4.—REGISTERED WORKSHOPS.

5.—OTHER MATTERS.

4.—REGISTERED WORKSHOPS.		5.—OTHER MATTERS.		
Workshops on the Register (s. 131) at the end of the year. (1)	Number. (2)	Class. (1)	Number. (2)	
Number of Workshops (including Bakehouses).....	321	MATTERS NOTIFIED TO H.M. INSPECTOR OF FACTORIES :—		
Number of Outworkers' Premises on Register.....	249	Failure to affix abstract of Factory and Workshop Act (s. 133)	5	
		Action taken in matters referred by H. M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5) } Notified by H.M. Inspector	1	
			Reports (of action taken) sent to H.M. Inspector	1
		Other .....	...
		Underground Bakehouses (s. 101) in use at the end of the year	1	
TOTAL Number of Workshops on Register.....	570			



REPORT

On the HEALTH AND SANITARY CIRCUMSTANCES

of the

COUNTY BOROUGH OF NORTHAMPTON,

FOR THE YEAR 1921.

*To the Mayor, Aldermen, and Councillors of the County Borough
of Northampton.*

MR. MAYOR, MRS. SCOTT, AND GENTLEMEN,

In presenting herewith the Report on the Health and Sanitary Circumstances of the Town for the fifty-two weeks ended 31st December, 1921, I have to point out that the present need for drastic economy has induced the Ministry of Health to require more than usual brevity in such documents.

The Ministry suggests that, in future, although the general plan referred to in the introductory remarks in my report for 1920 should be adhered to, the subject matter of these annual reports should be cut down ordinarily to a minimum, but that each fifth year a fuller survey report should be presented summarising the reports for the intervening years and commenting in more detail on the whole quinquennial period. I have endeavoured to follow these suggestions, although on some points I have found it a little difficult to convey intelligently a proper idea of the work carried on under these circumstances.

The effect of the late war is still felt in the state of unemployment existing, which undoubtedly has a bearing on public health, and in the overcrowding due to the lack of sufficient housing accommodation. The great drought of 1921, with its resulting water shortage, was also a factor to be taken into account. In spite of these circumstances, I submit that so far the results as shewn in the statistics of mortality and morbidity are satisfactory and the health of the town was good during the year. The absence of any great epidemic no doubt helps to account for this, but the extended efforts of the staff, particularly in regard to maternity and child welfare, are not without influence. We are to be congratulated on the entire absence of smallpox which is in many places menacing public health, while the prevalence of the other communicable diseases did not attain serious epidemic dimensions.

All the members of the staff carried out their duties loyally and energetically and I have, as usual, to acknowledge the consideration at all times shewn to me by them and by my fellow officials outside my own staff.

I am,

Your obedient Servant,

J. DOIG McCRINDLE.

PUBLIC HEALTH DEPARTMENT,

GUILDHALL, NORTHAMPTON.

MAY, 1922.

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CHIEF FIGURES, 1921.

ESTIMATED POPULATION (from Register General)								
AT MID-YEAR, 1921	92,300
BIRTH-RATE	...	...	...	...	...	...	...	20·4
DEATH-RATE	...	...	...	...	...	...	...	10·4
INFANT MORTALITY	...	...	...	...	...	...	...	65·9
“ ZYMOTIC DEATH-RATE ”	...	...	...	...	...	...	...	0·35
DEATH-RATE FROM PULMONARY TUBERCULOSIS	...	...	...	...	...	...	...	1·06
DEATH-RATE FROM OTHER TUBERCULOUS DISEASES	...	...	...	...	...	...	...	0·17
TOTAL DEATH-RATE FROM TUBERCULOSIS	...	...	...	...	...	...	...	1·23

	MALES.	FEMALES.	TOTAL.
BIRTHS	976	905	1881
DEATHS	495	469	964

AREA OF BOROUGH (in acres)	...	...	...	...	...	3,469
INHABITED HOUSES (Middle 1921)	...	...	...	...	...	20,568
DENSITY OF POPULATION (Estimated Middle 1921) :—						
26·6 Persons per Acre.						
4·5 Persons per House.						
RATEABLE VALUE (end of 1921)	...	...	...	...	...	£433,165

I.—NATURAL AND SOCIAL CONDITIONS.

Population The Registrar General estimates the population of the town at the middle of the year 1921 as 92,300. This is not quite an accurate figure, as owing to certain abnormal circumstances existing at the time of the Census the figure actually enumerated (90,923) was considered fallacious and a slight correction based on estimation had to be brought into use. It is, however, the most nearly accurate available at present. In 1911 the population was 90,064. Thus during the intercensal decennium the natural increase in the population amounted to 859, or about 86 per annum.

Social Conditions The only comment necessary in an abbreviated report such as this in connection with social conditions is concerned with the prevailing extent of unemployment. This became urgent in the early part of the year and reached considerable dimensions at the close. While it is impossible to state accurately the numbers out of work certain indications may be given. At the latter end of the year the Distress Committee was employing about 1,500 men on various relief works, while the Guardians were giving relief to 47 men, 44 wives, and 98 children. The numbers of ex-service men unemployed greatly aggravated this state of affairs. Such conditions, at least indirectly, are not without influence on the public health.

Births and Birth-rate During the year, 1,881 births were registered. This is a distinctly lower figure than the somewhat inflated one of 1920 and the rate is reduced from 24·2 in 1920 to 20·4. The figure for England and Wales is given as 22·4 in contrast to the 1920 one which was 25·4. There were 80 illegitimate births registered, which constitutes 4·2 per cent. of the total. This is a higher proportion than in 1920 and it should be of some interest in this connection to refer to the report of that year.

Deaths and Death-rate There were 964 deaths registered, a rate of 10·4. This is the lowest local death-rate of which I have any record, the nearest to it being 11·3 in the previous year. During the last two years the Northampton death-rate has been falling more rapidly than that of the country, though since 1885 it has been consistently lower with the exception of the first two war years. When we consider the abnormal climatic conditions of 1921 there is ground for congratulation that the figures are so satisfactory.

The proportion of cases in which there was no medical certificate of the cause of death is 6·6 per cent. ("inquests" 56, "uncertified" 8) and is rather above the average. The number of those in which no inquest was held and which are therefore uncertified by either medical practitioner or coroner is gratifyingly small from the statistical point of view.

The infant mortality and mortality from infectious and other diseases will be dealt with elsewhere in the report and in appendices.

Other
Statistics

Attention is again called to the continued state of overcrowding alluded to in former reports. The increased number of houses built during the period was not sufficient to seriously modify this. With the return of ex-service men the average number of families in each house increased rather than otherwise and a greater number of individuals per household also followed. This was the state of things at the beginning of the year and there has been little chance of improvement since.

Other
Features

II.—SANITARY CIRCUMSTANCES.

The year 1921 has been a particularly eventful one in the history of the water supply of Northampton. The sources of supply, the quantity available and the character of the water in previous years have been described in former reports. For years the Water Engineer, especially, has been calling attention to the inadequacy of this supply and at length in 1913, a Corporation Water Act was obtained authorising the construction of an impounding reservoir at Hollowell, three aqueducts and a service reservoir at Boughton. Unfortunately, the intervention of the Great European War raised such difficulties that at the beginning of 1921 the work on the first of these was not begun and the Boughton reservoir was not completed. The waters of the Stowe Brook, authority to take which before the construction of the Hollowell reservoir was given in the Act of 1913, added about 300,000 gallons per day on an average during 1920-21. These waters were conveyed in an aqueduct to the existing filter beds at Ravensthorpe. Even with this latter addition it became evident early in the year that the maintenance of the supply was in danger and as the great drought progressed the water in the Ravensthorpe reservoir gradually diminished. Further in October the yield of the wells at Ravensthorpe and Billing Road (each about 300,000 gallons per day) lessened and matters became critical. The Water Engineer had to look for further sources at once and to secure the use of these by agreement with the landowners even before parliamentary authority could be obtained. Fortunately a supply was available and immediately (end of October, 1921) put into use and the town was saved for the moment from the worst consequences of a very serious water famine.

Water
Supply

The constant daily supply was thus maintained up till the end of the year when the Ravensthorpe reservoir became empty. (January 4th, 1922).

Since the beginning of the present year (1922) the supply has had to be controlled and cut off from domestic use between the hours of 6 p.m. and 6 a.m. Steps have been taken to increase the Stowe Brook supply to 800,000 gallons per day by inter-

cepting the waters above Guilsborough sewage works. A further scheme is in process of being carried out for the sinking of a series of four wells and collecting drains through the river gravel in proximity to the Nene on lands periodically flooded by that river. The first well had already been sunk by the end of the year and the second was in course of construction with the result that between 300,000 and 400,000 gallons per day were available. A total quantity of 1,600,000 gallons per day was in this way obtained for the whole town and by cutting off the supply periodically, as mentioned above, the demand was made to fit. Of course these waters are more or less polluted, but according to Sir Alexander Houston of the Metropolitan Water Board less so than the unfiltered Thames water. This same authority is of opinion that when treated with chlorine and filtered this supply will be superior to that of London from the Thames. Consequently, since the end of October last, after the installation of a chlorine plant, increasing quantities have been taken from this source, treated with chlorine and added to the town supply. Sir Alexander Houston has, since the beginning of the year, reported satisfactory results in regard to purity and is corroborated in this respect by our own Bacteriologist, Dr. Shaw. Although, pending adjustment of the proper proportions of chlorine, there was some complaint at first about the taste of the water, such has disappeared especially since a method of de-chlorination has been introduced. Further reference to these auxilliary supplies, their methods of treatment and results of systematic examination and control belong to the period embraced by the next annual report, but there seems no doubt that if the quantity is adequate we have a supply which can be rendered safe for drinking. In view of these circumstances it will be very interesting to note the further development in the near future of the Northampton water supply.

During almost the whole period covered by this report the ordinary mixed supply of the town from the reservoir and the two deep wells has been used as previously, and its character has remained substantially as before. The results of analysis vary according to the relative proportion of each constituent present in the particular sample examined, and this makes it very difficult for the analyst to give an opinion as to its purity on any one sample. A complete knowledge of the local circumstances, only to be acquired after considerable experience, is essential if his opinion is to be of value, and it is absurd to expect that, until he has had time to obtain this experience, he should commit himself by any definite statement.

From the foregoing considerations and judging by the health history of the town, Northampton water seems to have its own standard of purity on which alone single samples can be judged intelligently.

Twenty-seven reports were received from the Bacteriologist in reference to eleven samples from the reservoir, nineteen from the inflow pipe to the filter beds of reservoir water, nineteen from the pure water tank at Ravensthorpe, where the filtered and at times partly chlorinated water is collected before flowing towards the town, three from the deep well at Billing Road, and five from various taps in the town at the point of delivery to the household. The variety of the information contained in these reports emphasises, what has been stated above, the danger of expressing a premature opinion, but there is no point for special comment. The Public Analyst, who examines the water from time to time chemically, sent four reports in connection with one sample from the deep well and three from the mixed supply at the point of delivery. Here also there is nothing for special comment.

Unlike many other manufacturing towns the trade processes in Northampton do not to a material extent pollute any adjacent streams, though probably some contamination is received from the tanneries. The river water is quite usable, therefore, for extra domestic services and is thus employed for street watering.

Rivers and
Streams

There is a considerable proportion of older buildings in the town in which the drainage is defective and this receives attention as it comes to our notice year by year. The sewers, however, in many parts of the town are inefficient, being too large to permit of the flow necessary for cleansing purposes and complaints of the escape of sewer gas into the atmosphere are very frequent, particularly in the higher parts of the town. I believe that little short of entire reconstruction of many of our sewers will materially alter this.

Drainage
and
Sewerage

The closets in the town, with almost no exception, are water closets, but in the older property they are not connected with a water supply and require to be flushed by hand. This is extremely objectionable as it puts a premium on uncleanness and is probably due to the insufficient water supply. The Building Bye-laws require all new houses, however, and the Factory Acts all houses used as workshops, to have closets properly supplied with flushing water and the older form is slowly disappearing. While most of the houses have their own water closet, there are in some of the poorer districts groups of houses where such is used in common. There is hardly a single privy left within the borough boundary.

Closet
Accom-
modation

I have, as in the 1920 report, again to call attention to the unsatisfactory nature of the scavenging in the town. There is little likelihood of improvement in the immediate future owing to the financial stress of the present time, but this is a subject which I hope will receive immediate attention when costs are reduced and money is more available than it is now.

Scavenging

Sanitary
Inspection

Comparison of Tables 1, 2, and 3 with the corresponding tables in the report of the previous year, will show that the work of sanitary inspection was extended somewhat on similar lines. An increased amount of house inspection was carried out, but the difficulty of getting work done to remedy nuisances on account of the great cost of labour and materials was marked and almost necessarily influenced the action of the Department. It will require time and trouble on a large scale to remedy the effects of stagnation in this direction due to the war.

House
Inspection

As stated above this work shows a great increase over 1920. The housing survey began in the previous year was continued during the present and 3,217 premises were visited and reported on. The records thus made will be kept till a complete survey of the dwellings in the town is effected. It is hoped to use this as soon as circumstances permit in any suggested scheme of housing and town planning recommended. Reference is again made to this subject in the section on Housing.

Common
Lodging
Houses

Inspector Walker, who is responsible for the direct supervision of these dwellings, reports that there are now only four on the register. The largest and best equipped of those previously in use (8, Castle Street) was closed at the end of the year and is being converted into warehouses, etc. Two of the keepers were served with notices under the bye-laws for neglect in management, but this action has had the desired effect of producing a great improvement and there is now no reason for further complaint.

Canal
Boats

Inspector Knowles, Canal Boats' Inspector, made his report as usual in January to the Public Health Committee for transmission to the Ministry of Health as is required by the Canal Boats Acts. Nine boats were inspected and two of these were found to be travelling without proper certificate. No case of infectious disease was found and no new boats were registered. The number on the register known to be in use at the end of the year was only seven.

Offensive
Trades

There was no addition to the register of any trade coming within this category and those already on the register (see report for 1920, page 11) were at all times carried on in compliance with the bye-laws.

Premises
controlled
by Bye-
laws, etc.

Those, other than the above-mentioned, *e.g.*, cowsheds, milkshops, bakehouses, and slaughterhouses, are considered in the section on Food.

Schools

The paragraph in the report for 1920 on page 11 needs no amplification and in the interests of economy need not be repeated here. Dr. Skinner, Deputy and Assistant Medical Officer of Health, is School Medical Officer, and his report, already presented and published separately, has dealt fully with the whole of the work of the school medical service including such as is most closely related to the general public health. There was no outstanding circumstance requiring special comment.

III.—FOOD.

In the report for 1920 the sources of the milk supply were detailed and the conditions during 1921 were similar. Several large firms and over 150 small retailers distribute this commodity and these are registered in accordance with the Dairies, Cowsheds, and Milkshops Orders.

Milk
Supply

The details of the administration of these orders are in the hands of the inspectors and generally there was little to complain of in regard to their observation.

Dairies,
Cowsheds,
and
Milkshops

The names of 167 milksellers and 22 cowkeepers were on the register at the end of the year, when a revision of the register took place. The inspectors' visits numbered 229 and infringements or other defects were found and promptly remedied in sixteen instances. Thirty new registrations were effected.

The following is the form of report desired by the Ministry of Health on the work done under these Regulations:—

Milk and
Cream
Regula-
tions, 1912
and 1917

1.—Milk ; and Cream not sold as Preserved Cream.

	Number of Samples examined for the presence of a Preservative.	Number in which Preservative was reported to be present, and percentage of Preservative found in each Sample.
Milk	148	nil.
Cream	14	3*

*The samples contained 0·11 per cent., 0·09 per cent., and 0·07 per cent. respectively of boric acid. No action was taken under the Regulations as the samples were all informal.

2.—Cream sold as Preserved Cream.

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct.

(i) Correct statements made	5
(ii) Statements incorrect	0

Total 5

(iii) Percentage of Preservative found in each Sample.	Percentage stated on Statutory label.
0·25 per cent.	In each case
0·25 „ „	labelled not
0·14 „ „	to contain
0·02 „ „	more than 0·4
nil.	per cent.

(b) Determinations made of milk-fat in cream sold as preserved cream.

(i) Above 35 per cent.	5
(ii) Below 35 per cent.	0
	<hr/>
Total	5
	<hr/>

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V. (1) and the proviso in Article V. (2) of the Regulations have not been observed nil.

(d) Particulars of each case in which the Regulations have not been complied with and action taken..... nil.

3.—*Thickening Substances.*

Any evidence of their addition to cream or to preserved cream. Action taken where found..... nil.

4.—*Other Observations, if any.* Nil.

Milk
(Mothers
and
Children)
Order,
1919

Reference to this Order and our efforts in connection with it will be found in the report of the Assistant Medical Officer for Maternity and Child Welfare, contained in Appendix II. In the absence of any feature calling for special note no further comment is here needed.

Meat and
Food
Inspection

No change has taken place in the general arrangements for this work described in last year's and previous reports which should be consulted.

Slaughter-
houses

There are still 56 private slaughterhouses on the register, all but four being "Registered Slaughterhouses." Occasionally it happens that from long disuse registration of a slaughterhouse automatically lapses but such occurrences are very seldom and the number remains about the same from year to year. The four exceptions referred to above are "Licensed Slaughterhouses" requiring annual renewal of the licence, a fact which greatly assists their supervision.

During 1921, 3,549 visits of inspection were made to private slaughterhouses, a costly and comparatively inefficient means of supervision compared with that possible at a public abattoir, but the only one possible under existing circumstances.

Disease
in Meat

The chief disease found is of course tuberculosis and the following is a statement in tabular form showing the extent of this disease found in the carcasses inspected. No less than 85.5 per cent. of whole and 98.2 per cent. of part carcasses of beef and pork were found to be affected by this disease amongst those inspected during slaughter or at the request of the butcher on account of suspicious evidence afterwards.

	CARCASSES DEALT WITH.		NUMBER OF THESE FOUND TO BE TUBERCULOUS.	
	WHOLE	PART	WHOLE	PART
Beef ...	45	46	37	42
Mutton	38	2	...	...
Pork ...	59	179	52	179
Veal ...	6	...	...	...

On two occasions food was dealt with by a magistrate on the application of the Medical Officer of Health or an inspector. There were no prosecutions.

Action
under
Section
117 of the
Public
Health
Act, 1875

Ninety-nine were on the register at the end of the year, 209 visits of inspection were made and on 48 occasions infringement of bye-laws or regulations was found and remedied.

Bake-
houses

Visits were regularly paid to premises where sausages, potted meats, sweets, jam, and other foods were made. As a rule little objection was found, but occasionally it was necessary to point out, and sometimes with emphasis, the need for cleanliness and minor alterations in construction.

Other
Premises
dealing
with Food

No occasions arose where such was suspected, in spite of the warm dry climatic conditions which made food storage more than usually risky. The complaints made were without real foundation.

Food
Poisoning

Table 1 gives a summary of this work and Table 4 in more detail the results of the inspectors' efforts. Reference may be usefully made to the report for the previous year (Tables 7, 8, and 9).

Food
Inspection
Generally

There were submitted to the Public Analyst 223 samples in accordance with the procedure laid down in these Acts, an increase of 37 over the number in 1920. Twenty-five of these were reported not to be genuine, a proportion of 11.2 per cent., which is an improvement. Table 5 shows the usual detailed information in regard to these samples.

Sale of
Food and
Drugs
Acts

The proportion of samples taken informally (14.35 per cent.) was only about half that in 1920 (28.5 per cent.) and the proportion of milk samples to the total (66.4 per cent.) was slightly above that for 1920 (62.9 per cent.).

IV.—PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES.

- Generally It is still convenient for comparison to retain the use of the old terms "zymotic diseases" and "zymotic deaths," which are gradually becoming obsolete, and thus Table 6 is presented. In 1921 the "zymotic death-rate" (0·35) was the lowest recorded with the exception of 1919. This is the more remarkable when the climatic conditions obtaining during the greater part of the year are taken into account, as these were of the type hitherto considered specially favourable to the spread of some of the most fatal of "zymotic diseases."
- Measles,
Rubella,
and
Whooping
Cough Of the communicable diseases which are not compulsorily notifiable there is little to add to what is contained in previous reports. Reference to Table 7 will indicate the prevalence and fatality of measles, rubella, and whooping cough in 1921. The number of suspected cases of measles reported from the schools is the lowest since 1908.
- Influenza As in the immediately preceding year, 1921 passed without any serious prevalence of influenza and only seven deaths were recorded.
- Diarrhœa
and
Enteritis These diseases, which hitherto, in years with prolonged heat and drought in the later summer months, have caused more disease and death than any of the other "zymotic diseases," were remarkable by their comparative absence. This occurred in spite of climatic conditions more favourable to their spread than ever existed before, so far as our records go. Although the death-rate exceeded that of the previous year or two it reached no great dimensions. It was little more than half that of the whole country and nearly six per thousand below our own average annual death-rate during the last decennium. The effect on infant mortality is, of course, marked and is given due prominence in the report of the Assistant Medical Officer (Appendix II.).
- Smallpox
and
Vaccinia In spite of outbreaks all over the country no true case of smallpox occurred in the town, though suspected cases were from time to time seen by the Medical Officer of Health on behalf of the general practitioners. Table 9 gives certain information in regard to the vaccinal condition of the population and I have again to acknowledge the courtesy of the County Medical Officer, Mr. Paget, for the information needed to construct the table.
- Scarlatina One hundred and eighteen cases were notified, the largest number since 1916. One notification referred to a non-resident undergoing treatment at the General Hospital. Tables 10 and 11 should be consulted for details of the incidence of this disease. 75 per cent. of the cases were removed to the Isolation Hospital. Usually the type was mild.

Of the twelve cases notified, four were county cases admitted to the General Hospital. Four others occurred in one family. The first of these, a mild case, was not suspected till a second infected from it was well advanced with a fatal attack nearly two months later. Outside the preceding groups four sporadic cases were notified, two of which were not typhoid fever and a third seemed to be paratyphoid. Six cases were sent to the Borough Hospital where one died. (See Table 12).

Typhoid
Fever

Two doubtful cases were notified, in which the diagnosis was not confirmed in the laboratory. They were removed to and died in the General Hospital.

Cerebro-
spinal
Fever

The two notified cases of this disease occurred in January and both died, one of them before notification. No bacteriological confirmation of diagnosis was obtained and both were very doubtful. They were not removed to hospital.

Acute
Polio-
encephalitis

Three notifications were received, two of which were subsequently withdrawn. The third was not a Northampton resident but was admitted to the General Hospital from the county.

Acute
Encephalitis
Lethargica

See Table B. The malaria case was not contracted locally.

Erysipelas.
Malaria

The particulars in relation to this disease will be found in the report of the Assistant Medical Officer (Appendix II.).

Ophthalmia
Neonatorum

There were notified 217 cases of diphtheria (excluding one military case), an attack-rate of 2.35 per 1,000 of the population and the highest since 1915. Six of these, as the result of further observation on removal to hospital, were found not to have the disease and three others were sent in from the county. The number of presumably genuine Northampton cases was therefore reduced to 208. Tables 13, 14, and 15 give certain details in reference to these. The annual reports for several years recently have dealt with this subject of local diphtheria prevalence at some length and it is not proposed to add materially to such in the present report, as no new experience of any weight is at my disposal.

Diphtheria

The number of deaths and the death-rate were similar to those of the preceding year, but owing to the greater number of cases the fatality of the disease was reduced to 4.1 per cent.—the lowest yet recorded. The death-rate for England and Wales (0.12) was again in excess of the local death-rate. Of the nine deaths recorded amongst the notified cases, six occurred before the receipt of notification. There was one other death amongst the notified cases, but as death was not directly due to diphtheria but to congenital syphilis, it is classified amongst the latter group and not reckoned as a diphtheria death.

The absence of secondary cases in infected houses and even of more than one household in invaded streets was as definite as hitherto.

Two hundred and one (92·6 per cent.) of the 217 notified cases were examined bacteriologically. In other words there were only sixteen in which the bacteriologist was not consulted at some time during the course of the disease. In 82·1 per cent. (165 of those examined) this was done before notification, presumably as an aid to diagnosis. 156 (77·6 per cent.) were examined towards the termination of the illness as a precaution before freeing the case from isolation. Most of the latter were hospital cases and as yet this is far from a routine measure with those isolated at home. The importance of bacteriological aid, both in diagnosis and treatment, is certainly becoming better appreciated by the general medical profession in the town. It seems possible, however, to overstress the value of this laboratory aid and one negative report on a swab will sometimes cause a real case to be overlooked, while the mere presence of a few bacilli in an otherwise normal throat hardly justifies notification on all occasions. There is no doubt that some of the notified cases were merely healthy carriers. These, of course, constitute a potential danger, but if all are to be searched out and treated as real diphtheria cases and isolated in hospital the cost to the community, it seems to me, will be prohibitive. Some other methods of dealing with such carriers must be found. Another type which presents great difficulty is the convalescent with a chronic inflammatory condition of throat and nose, more or less inactive, in which the diphtheria bacillus lives on long after all clinical signs and symptoms of the disease have disappeared. Report after report from the laboratory shows still the presence of diphtheria bacilli, or organisms indistinguishable from them by ordinary methods of examination, apparently dormant. If such a case is to be retained in hospital till the three consecutive negative reports usually required hitherto are received from the laboratory, the cost and inconvenience will be much increased. Fortunately, methods are being tested at the present moment for dealing effectively with all these "carriers" and "chronic cases" which may be of very great assistance, but which need not be gone into here. The point to be noted is that a blind reliance on the laboratory report, both in the diagnosis and treatment of diphtheria, without considering the clinical condition is apt, I think, to lead to mistakes.

Puerperal
Fever

The report contained in Appendix II. deals with this disease in sufficient detail.

Venereal
Diseases

In 1921 the number of cases belonging to the County Borough of Northampton which commenced treatment for the first time as out-patients at the Clinics was 179. The following tabulation shows how this figure was made up:—

CONDITION.	MALES.	FEMALES.	TOTAL.
Syphilis	39	37	76
Soft Chancre	16	—	16
Gonorrhœa	51	11	62
Other than Venereal ...	19	6	25
Total	125	54	179

The numbers are a little lower than last year, except in the case of women suffering from syphilis.

The records give the information that only four were discharged after the full course of treatment was completed, whilst no fewer than 155 commenced but would not await the completion of their cure. The latter are classified as follows :—

CONDITION.	MALES.	FEMALES.	TOTAL.
Syphilis	53	30	83
Soft Chancre	6	—	6
Gonorrhœa	57	9	66
Total	116	39	155

The course is in many instances a long one and requires considerable perseverance, while the immediate improvement is quite marked and these two facts together account in great measure for that lack of patience and perseverance which is absolutely necessary, but at the same time makes ultimate cure fairly certain. Short of this complete cure, the case is prone to relapse and the good done temporarily to be lost. The time and money—no small item usually—are all but wasted and the danger, both to the individual and the community remains. This forms at present the most pressing problem to be dealt with in connection with our efforts to control venereal disease and similar results are being reported all over the country.

There were 3,432 attendances at the out-patient Clinics and 250 days were spent by patients as inmates of the Hospital. 1,160 doses of salvarsan substitutes were given in the treatment of these. The substitutes used were novarsenobillon and sulpharsenol. The course of treatment followed corresponded with that suggested by the Ministry of Health. Full use has been made of the new Pathological Laboratory at the General Hospital, as an aid both in diagnosis and treatment, and 585 bacteriological and other reports were furnished in connection with specimens submitted. Of this number, 449 were from the Special Clinic and 136 were sent by private medical practitioners. The cost of this pathological work was about £160.

As in former years the educational and propaganda work on behalf of the town was carried on through the agency of the Local Branch of the National Council for Combating Venereal

Diseases, of which the Medical Officer of Health was for the greater part of the year the honorary secretary. Each of the members of the Public Health Committee is, *ex-officio*, a member of the Executive Committee of the Branch, so that public control of its activities should be assured. The work was concentrated in a spring and autumn campaign. The former occupied about a fortnight in the month of April and was organised on behalf of the Branch by Miss F. Latham from the National Council. A series of fourteen meetings addressed by both medical and lay speakers was held for the members of most of the social, religious, industrial and political organisations, both male and female, and much good educative work was done. The autumn campaign in November was exclusively amongst factory employees, males and females separately, and in most instances at the factories themselves. Miss Latham again gave the addresses to women and Mr. H. R. Elliott, a lay organiser of the National Council, spoke to the men. The various audiences totalled approximately 5,000 and over twenty meetings were held.

Pneumonia

(1) NOTIFICATION. (See Table B.). This disease became compulsorily notifiable in March, 1919, under the Public Health (Pneumonia, etc.) Regulations of that year. Notification is restricted to cases of lobar and broncho-pneumonia which are primary and not such as arise in the course of other diseases, with the exception of influenza. There still seems to be misapprehension on the part of some practitioners about the inclusion of broncho-pneumonia and this, combined with the comparative recentness of the "Order," probably accounts for the fact that a certain number still remain unnotified. The following classification of the notified cases may be of interest :—

	MALES.	FEMALES.	TOTAL.
Pneumonia (or Lobar Pneumonia)	50	20	70
Broncho-pneumonia	40	20	60
Influenzal Pneumonia ...	4	2	6
Total	94	42	136

This classification is based on the information contained on the notification certificate, but subsequent investigation showed that for one reason or another a certain degree of inaccuracy existed so that this tabular statement should be received with some reserve. Table B. indicates the age incidence and the distribution of the cases in the various wards of the town. The disease will be found most prevalent in young children and in full-grown adults, more frequently in men than in women and prone to predominate in the central, more crowded and poorer neighbourhoods. The average age of the broncho-pneumonias, most of which were in children, was 3·25 years, of the lobar pneumonia cases 36·9 years and the influenzal type 36·5 years. The deaths amongst the notified cases are classified as follows :—

	MALES.	FEMALES.	TOTAL.
Pneumonia (or Lobar Pneumonia)	14	12	26
Broncho-pneumonia	5	2	7
Influenzal Pneumonia ...	2	—	2
Total	21	14	35

Twelve of the above deaths (over 34 per cent.) occurred in the Castle ward, which contains generally the poorest and most overcrowded section of the population and is the part of the town where the housing conditions are least satisfactory. The fatality of the disease, based on the foregoing figures, was about 25 per cent. In at least fifteen of those who died, the notification was only received after death or within 48 hours of it.

(2) DEATHS REGISTERED. (See Table C.). The actual number of deaths registered due to the pneumonia was 58, a death-rate of 0.63. For obvious reasons these figures differ somewhat widely from those immediately preceding as they include deaths of unnotified cases and of those in which the pneumonia supervened on some previous pathological condition. The uncertainty in regard to the notification of broncho-pneumonia emphasises the difference. Twenty-three of these deaths referred to cases not notified and six occurred outside the district though amongst Northampton people. The following classification is on the same lines as those above.—

	MALES.	FEMALES.	TOTAL.
Pneumonia (or Lobar Pneumonia)	20	17	37
Broncho-pneumonia	15	6	21
Influenzal Pneumonia ...	—	—	—
Total	35	23	58

The two deaths from influenzal pneumonia do not appear amongst the above as they are classified with the influenza deaths, this latter disease being the primary cause of the fatal result. The same features of incidence found amongst the “cases notified” characterise the group represented by the “deaths registered” so far as age, sex, and locality are concerned.

In the report for the previous year a brief summary of the anti-tuberculosis scheme was presented. Appendix I. of the present document consists of a statement of the work of the tuberculosis section of the Public Health Department made to the Medical Officer of Health (as Chief Tuberculosis Officer) for the purposes of this report by the Clinical Medical Officer, Dr. Stephen Rowland, who has charge of the work in detail. Dr. Rowland's report is almost exactly on the lines of the previous one and contains all the usual tables of statistics and may most usefully

Tuber-
culosis

be read alongside that of the year 1920. Dr. Rowland's remarks on the fall in the number of notifications without corresponding reduction in the number of deaths are interesting, as are his suggestions for the extensions of preventive work amongst apparently healthy contacts. There is no function of the Department so difficult to fulfil satisfactorily as this and much must depend on the initiative and perseverance of the officials, as the dread of possible disabilities imposed is so great amongst those who believe themselves well that it is hard to induce them to submit to examination and supervision. Every conceivable effort, requiring great tact and perseverance, is called for to educate the community in general and these contacts in particular to recognise the value of such proceedings and the utility of our anti-tuberculosis work should be gauged by our success in this more than in most other directions.

It is gratifying to find that the co-operation mentioned by Dr. Rowland between the Department and the general profession is still maintained, as this is essential to success. The seriousness of delay in notification cannot be too strongly emphasised and I commented on this in my last report. There is great need on the part of the public, especially employers, of dealing intelligently, as well as sympathetically, with the notified tuberculous man so as not to induce him to hide his complaint in the early stages for fear of immediate consequences. Even cases which eventually terminate fatally usually pass through a considerable period without endangering their fellows, especially if they are under intelligent supervision and this period is greatly prolonged in those in whom arrest of the disease is looked for. Everything should be done (and much can be done) to encourage the tuberculous to seek help in treatment. To the information contained in Dr. Rowland's report I wish again to add Table 17 for the reason given last year.

Borough Hospitals

The work of these institutions was in continuance of that mentioned in the previous report.

SMALLPOX HOSPITAL. The Smallpox Hospital remained happily closed but in constant readiness, under the care of the Matron of the Harborough Road Institution.

WELFORD ROAD HOSPITAL. The work of the Welford Road Tuberculosis Hospital, under the supervision of the Tuberculosis Officer, is dealt with in his report. Towards the end of the year on the resignation of the Matron, Miss Middleton, Miss Whitehouse from Norwich was appointed to the post. The usefulness of such an institution as part of our anti-tuberculous scheme is becoming daily more evident.

HARBOROUGH ROAD FEVER HOSPITAL. Table 16 shows the numbers of cases under treatment in this institution.

Scarlatina. Sixty-six cases, all of which were classified as genuine, though several were doubtful, finished their period of treatment and were discharged during the year after an average stay in hospital of 50·7 days.

Diphtheria. There were 119 genuine cases which recovered, after completion of an average period of stay of 44·3 days. There were four deaths.

Typhoid Fever. Of the seven cases admitted, all of which were genuine typhoid or paratyphoid, two died and five were discharged after recovery. The average stay of these latter five was 62·4 days.

There was only one military case admitted during the year—a measles case.

Fortunately the complications recorded were very few, so few that tabulation is unnecessary and would be of little value. Toxæmia, following scarlatina and typhoid fever, and cardiac paralysis in the course of diphtheria were the only fatal ones.

“*Return Cases.*” One case of scarlatina came under the category “return case” for definition of which see former reports, especially that for 1914, p. 67. D.R. (No. 21/49, H.N. 41) aged nine, was admitted on 28th September from a household in which a previous case R.R. (No. 21/29, H.N. 22) aged four, returned from hospital on 22nd September, after a stay of fifty-five days. The so-called “infecting case” had suffered from a few minor complications, such as external rhinitis, mostly of traumatic origin, but this was quite healed for some time before discharge. The day after discharge the child picked his nose and set up some rhinitis again. The possible “return case” was sixty-six days in hospital and suffered from the same complication brought on in the same fashion.

Table 18 gives statistics showing the bacteriological work accomplished on behalf of the Department during the year. It includes the work of the laboratory at the Tuberculosis Dispensary, where practically all the specimens of sputum were examined for tubercle bacilli. A summary of this work in connection with venereal diseases, however, is not included, but will be found stated separately in the paragraph dealing with these diseases above.

Bacterio-
logy

The Meteorological table and that showing the work of the Disinfecting Station are inserted, as usual, in the Appendix.

Meteoro-
logy.
Disinfec-
tion

V.—MATERNITY AND CHILD WELFARE.

General Remarks

The supervision of maternity and child welfare forms the most important part of the duties of a public health department at all times and more especially in the circumstances consequent on the late war. Besides its importance it is of special interest, as its results seem to be more immediately felt than in the case of any other branch of public health work. It is only within the last twenty years that special efforts have been directed towards the welfare of the infant, apart from general sanitary measures, and it is only during the latter half of this period that a permanent effect on infant mortality has been perceptible in a manner that admits of no doubt.

It has not been generally recognised, however, until within a much shorter period, that one of the most influential factors in relation to infant life and health is the care of the mother before and during pregnancy and parturition. The failure to appreciate this earlier has had a modifying influence, I am certain, on the undoubted improvement which has taken place. I pointed out this in the report for 1920, as well as in several previous reports, and I am glad to be able to state that such small efforts in this direction as we were able to make previous to the present year have now been definitely extended.

The appointment of Dr. Emily H. Shaw in the end of 1920 as Assistant Medical Officer for this work entirely, under the general supervision of the Medical Officer of Health, has largely accounted for this as well as for the more thorough supervision of other efforts on behalf of the mothers and their infants. Dr. Shaw supervises the work of the midwives, controls and directs the efforts of the four health visitors, conducts the clinics at, and is responsible for, the general management of the welfare centres and their voluntary workers, and exercises a general supervision over the maternity homes. In addition she is in charge of the free and assisted milk supply and free meals afforded to necessitous mothers and selects the cases for dental treatment.

The report on the working of the whole scheme of maternity and child welfare is presented to the Medical Officer of Health by Dr. Shaw and is printed in the Appendix (No. II.) to the present annual report.

VI.—HOUSING.

Housing Scheme

During the last four years the housing question has been a very acute one in Northampton. From the records of the Public Health Department it was obvious that there was much overcrowding in the homes of the people since the war. A special Housing Committee of the Corporation was appointed and the work of building new houses under improved sanitary and social conditions has been carried out for this Committee by

the Borough Engineer. The work has entailed a great amount of effort and will cost hundreds of thousands of pounds before it is finished. Up to the end of 1921, 282 new houses had been built under the Corporation's housing scheme in the various suburbs of the town, 209 being actually within the borough. This, however, does not by any means meet the needs of the situation and a very considerable degree of overcrowding still remains.

The following is a summary of the erections of new, or extensions of old, buildings during the year, plans for which were approved by the Highways Committee:—

New dwellinghouses	13
Extensions to works	3
Extensions to offices	2
Additions to dwellinghouses	8
New water closets	9
New garages	16
New urinal	1
Alterations to shops	5
New stores and warehouses	6
New bungalows	2
Additions to factories	4
New shops and premises	1
New club room	1
New drainage	5
Temporary buildings	7

In the interests of economy it is not proposed to publish the table analagous to No. 41 in the 1920 report, but to give briefly the further action during 1921 and the condition at the end of the year of those properties which had not been finally dealt with. The following is a short statement to this effect:—

Housing,
Town
Planning,
&c. Act,
1909

Bearward Street, 31	Unoccupied.
Bridge Street, Court VII. (Fox's Yard), 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, & 11	Represented by M.O.H. on 26-1-21 but dealt with under Public Health Acts.
Freeschool Street, 26.....	Unoccupied.
Green Street, 62.....	Used as lock-up shop.
King Street, 10	Also used as store.
Nelson Street, 18	Closing Order on 4-4-21. Unoccupied.
Newland 56	Unoccupied.

Table 21 shews those houses which were represented during the present year as unfit for habitation in accordance with Section 17 of the Act, along with the subsequent action and the condition at the end of the year. In the previous report I remarked on the difficulties of closing houses, even when insanitary, in face of the present shortage and I need add nothing further to those remarks here.

Housing,
Town
Planning,
&c. Act,
1919

Last year I mentioned the presentation of the draft scheme under this Act, which had been approved in 1919 and stated that the staff had begun a careful survey of the town to enable the provisional scheme to be completed. This work went on steadily during the year and at the end a considerable portion of the poorer districts in the town had been surveyed. In this way 3,217 houses were visited and particulars scheduled. The work is still going on and will take some time to complete as, of course, it can only be done without seriously interfering with routine duties. No house-to-house inspection, as understood by the Public Health Act, 1875, was carried out, that under the Housing Act taking its place.

Public
Health
Acts

It was impossible to deal effectively with the great amount of overcrowding which existed in many households. A few of the worst cases, however, were taken up and in eighteen instances notices or letters were sent requiring alteration. In eleven cases these efforts were successful.

Fifteen houses, or parts of houses, were reported by the Medical Officer of Health under the terms of Section 46 of the Public Health Act, 1875, as being in such a filthy or unwholesome condition that the health of the occupants was affected or endangered thereby and that the cleansing and whitewashing were urgently required, or that the whitewashing or cleansing would tend to prevent the spread of infectious disease.

Such dwellings as common lodging houses and canal boats are mentioned in that part of the report which deals with Sanitary Circumstances. (Part II.).

Factories
and
Workshops

Table F. summarises, in the prescribed form, the work done by the inspectors under the Factory and Workshop Act, 1901.

APPENDIX I.

REPORT OF THE CLINICAL TUBERCULOSIS OFFICER FOR THE YEAR 1921.

TUBERCULOSIS DISPENSARY,
APRIL, 1922.

To the Medical Officer of Health and Chief Tuberculosis Officer.

SIR,

I beg herewith to submit to you my report on the working of the anti-tuberculosis scheme in the County Borough of Northampton for the year 1921 for inclusion in your annual report. The report is on similar lines to those of recent years.

STEPHEN ROWLAND.

The general scheme of anti-tuberculosis measures carried out in previous years was continued in 1921 with practically no alteration. It will be seen from Table T2 that the number of cases of tuberculosis notified to the Medical Officer of Health was very much smaller than that recorded for many years; in fact we must go back to 1911 to find a number at all comparable with it. From the same table we find the deaths registered from pulmonary tuberculosis were exactly the same as in the preceding year, giving the same death-rate of 1.06, which was remarked upon as the lowest phthisis death-rate so far recorded in Northampton. It will be interesting to observe if the number of deaths for the next few years falls at the same rate as the number of notifications. The influence of a large fall in these would not make itself fully felt for two or three years, owing to the average time which elapses between notification and death. As mentioned last year the death-rate is the more correct estimate of the amount of tuberculosis in the borough.

General
Remarks

Of the total number of pulmonary cases notified, forty-two were diagnosed at the Dispensary in conjunction with the general practitioners in the town, and I have again to thank the medical men of Northampton for their close co-operation in this work, and I hope we may further extend it so that a greater number of contacts may be induced to come to the Dispensary for examination. I do not think one examination of contacts is sufficient. Persons who have been exposed for some time to massive infection (as so many are in small houses where an advanced case is being or has been nursed) should be examined

several times at intervals of six or, better still, three months. This would involve some little trouble on the part of the contacts, but it would be found to pay in the long run as, if anything were going wrong, it would be detected early and measures might be taken to arrest the disease and prevent the repetition of what can only be called the tragedies which so frequently come to light at this Dispensary. At the risk of appearing to labour this point too far, I appeal to parents who have lost one child with phthisis to watch carefully the remaining ones and to prevail upon them to come for examination.

From Table T15 we find that out of the 98 deaths from phthisis in 1921, 37 had been notified less than one year and from other data it appears many of these had only been notified a few months. Of course this is not a satisfactory state of affairs for, although some few cases develop what may be termed an acute form of the disease, the great majority are chronic cases and must have been ill for a considerable time before notification. The cases which appear to go down hill most rapidly, and in which the prognosis is bad from their first appearance at the Dispensary, are anæmic girls and young women with a rapid pulse. In these the end is seldom long delayed.

As no cure for phthisis is known at the present time unless the disease be caught in the earliest stages, strenuous efforts should be made to reduce the number of fresh cases and, as these practically all arise through infection from a pre-existing case which is excreting tubercle bacilli in the sputum, it follows that the more we can isolate the open cases in hospital or induce them to practise as much isolation as possible in their own homes the more we reduce the chance of fresh infection. If we accept as truth the dictum 'no mosquitoes no malaria' we must also accept as truth the statement 'no open cases of phthisis no more fresh cases.' Isolation of all open cases is quite impracticable in this or any other country and, unfortunately, it is often in the later stages of the disease, when risk of infection is greatest to members of the household, that the patient refuses hospital treatment and the friends wish him to die at home.

Every case visiting the Dispensary and known to have tubercle bacilli in the sputum is supplied with a sputum flask and instructed to carry it about to prevent promiscuous spitting or the use of handkerchiefs. Frequently on making inquiries it is found the flask has been left at home. Under these circumstances it is little wonder that the fall in the phthisis death-rate is so small.

Notification

During 1921 there were 148 notifications of separate cases of pulmonary tuberculosis not previously notified. This number includes two cases of tuberculous laryngitis. There were also notified twenty-one cases of tuberculosis classified as other than

pulmonary. The total number of cases of tuberculosis therefore notified for the first time was 169. This is exclusive of five cases notified in the town but belonging to other districts ; these are known as “ outward transferable cases ” and are debited to the districts from which they come. The usual statistical tables will be found grouped together at the end of my report.

See paragraph 3 under “ General Remarks ” above, also Deaths Tables T8 and T11—T15.

The following is a short resumé of the work accomplished by, and in connection with, the Tuberculosis Department, grouped under the following sub-headings:—

- (a) Tuberculosis Dispensary ;
- (b) Welford Road Tuberculosis Hospital ;
- (c) Sanatoria.

ATTENDANCES.

Total number of attendances of patients	1650
Number of patients attending:—	
Males	317
Females	218

Tubercu-
losis
Dispensary

— 535

The above numbers include 31 “ contacts ” and 121 persons examined for “ diagnosis ” at the request of general practitioners. Two “ contacts ” and 40 “ diagnosis ” cases were subsequently notified.

The average number of attendances per patient was 3·09.

The following is the number of visits made by the nurse from the Dispensary during the period:—

Number of investigations after notification in the case of:—	
Pulmonary tuberculosis.....	149
Other forms of tuberculosis	19
Deaths from tuberculosis	14
	— 182
Re-visits	1009
	—
Total	1191
	—

The following is a summary of the work done at the bacteriological laboratory attached to the Dispensary:—

SPUTUM, URINE, ETC.			
NUMBER OF SUSPECTED CASES EXAMINED.	REPORTS MADE.		
	POSITIVE.	NEGATIVE.	TOTAL.
367	156	286	442

Welford
Road
Tubercu-
losis
Hospital

The following is the number of cases dealt with at this Hospital during 1921 :—

	MALES.	FEMALES.	TOTAL.
Number remaining at end of 1920	13	10	23
Number admitted during 1921 ...	54	29	83
Number discharged during 1921...	43	25	68
Number died during 1921 ...	9	6	15
Number remaining at end of 1921	15	8	23

Of the 83 cases admitted, 56 were insured persons.

The classification is as follows :—

For (a) Isolation.....	76
(b) Education	—
(c) Observation	7

Sanatoria

The following is a summary of the Northampton cases dealt with in sanatoria during 1921 :—

	MALES.	FEMALES.	TOTAL.
Number remaining at end of 1920	11	5	16
Number admitted during 1921 ...	24	14	38
Number discharged during 1921...	26	14	40
Number remaining at end of 1921	9	5	14

Of the 38 cases admitted, 24 (18 male and six female) were insured persons.

In the treatment of the above cases the following sanatoria were made use of :—

Northamptonshire Sanatorium, Creaton.

Royal National Hospital, Ventnor.

Royal National Sanatorium, Bournemouth.

National Children's Home Sanatorium, Harpenden, Herts.

In addition to the above, three cases went privately to the Royal National Hospital, Ventnor ; one to the Hahnemann Convalescent Home, Bournemouth ; one to the National Sanatorium, Benenden, Kent ; and one to the Normanston Hospital, Oulton Broad.

On discharge from sanatoria a report is sent from the sanatorium authorities in respect of each patient, giving certain details of the patient's condition at the time of leaving. From a summary of these reports Table T10 is compiled.

TABLE TI. NORTHAMPTON, 1921.

TUBERCULOSIS. CLASSIFICATION OF NOTIFIED CASES.

	MALES.	FEMALES.	TOTAL.
Pulmonary :—			
Lung and Pleura	80	66	146
Larynx	1	1	2
	81	67	148
Meninges and Brain	3	1	4
Peritoneum and Intestines	1	1	2
Spinal Column	1	—	1
Joints	5	2	7
Cervical Glands	1	3	4
Other Organs	2	1	3
Total	94	75	169

Besides the above number there were registered twenty-seven deaths in which no previous notification had been received. Thirteen of these were “outward transferable deaths” and are not reckoned as Northampton cases. Of the remaining fourteen the following is the classification :—

	MALES.	FEMALES.	TOTAL.
Pulmonary	4	1	5
Meninges	4	2	6
Peritoneum	1	—	1
Other Organs	2	—	2
Total	11	3	14

TABLE T2. NORTHAMPTON, 1901-1921.

PULMONARY TUBERCULOSIS. COMPARISON BETWEEN NUMBERS OF CASES NOTIFIED AND DEATHS REGISTERED EACH YEAR.

YEAR.	Cases notified.	Deaths registered.	Death-rate.
1901	44	104	1.19
1902	34	126	1.44
1903	55	114	1.29
1904	71	104	1.18
1905	67	99	1.01
1906	125	80	0.90
1907	99	116	1.30
1908	117	104	1.16
1909	130	118	1.32
1910	124	112	1.25
1911	155	111	1.23
1912	216	119	1.32
1913	230	100	1.10
1914	225	130	1.43
1915	208	114	1.26
1916	188	125	1.47
1917	256	144	1.74
1918	243	185	2.28
1919	204	115	1.29
1920	205	98	1.06
1921	148	98	1.06
Totals	3144	2416	—
Annual Average	150	115	1.30

TABLE T3. NORTHAMPTON, 1921.

PULMONARY TUBERCULOSIS. NOTIFICATIONS AND DEATHS OF CASES NOT NOTIFIED.

	MALES.	FEMALES.	TOTAL.
Number of Cases Notified	81	67	148
Number of Deaths of Cases not Notified ...	4	1	5*
Total	85	68	153

*After deducting the "outward transferable deaths."

The circumstances in connection with most of the above cases formed the subject of investigation. For certain reasons each year this practice has to be omitted in a few cases and during 1921 this occurred in the case of two notified cases and one death registered (not notified), and in making deductions from Tables T4—T7 this fact must be borne in mind.

TABLE T4. NORTHAMPTON, 1921.

PULMONARY TUBERCULOSIS. NOTIFIED CASES AND DEATHS OF CASES NOT NOTIFIED WHICH FORMED THE SUBJECT OF INVESTIGATION. DURATION OF ILLNESS.

PERIOD.	Cases Notified.	Deaths Registered of Cases not previously notified.	Total.
Under 6 months	50	1	51
Over 6 months and under 1 year	41	1	42
Over 1 year and under 2 years ...	27	1	28
Over 2 years and under 3 years ...	12	...	12
Over 3 years and under 4 years ...	4	1	5
Over 4 years and under 5 years ...	2	...	2
Over 5 years	3	...	3
Not Ascertained	7	...	7
Not Tuberculosis .....	...	...	...
Total	146	4	150

TABLE T5. NORTHAMPTON, 1921.

PULMONARY TUBERCULOSIS INVESTIGATIONS.

	MALES.	FEMALES.	TOTAL.
Single	35	38	73
Married	43	27	70
Widows and Widowers	4	1	5
Unascertained	2	...	2
Total	84	66	150

TABLE T6. NORTHAMPTON, 1921.

PULMONARY TUBERCULOSIS INVESTIGATIONS. DEGREE OF HOME ISOLATION FOUND.

	MALES.	FEMALES.	TOTAL.
No. having separate Bedrooms ...	31	32	63
No. having separate Beds (only) ...	9	5	14
No. having no Isolation	36	28	64
No. in Institutions.....	3	1	4
Unascertained	5	...	5
Total	84	66	150

TABLE T7. NORTHAMPTON, 1921.
PULMONARY TUBERCULOSIS INVESTIGATIONS. OCCUPATIONAL INCIDENCE.

OCCUPATION.	NO.	OCCUPATION.	NO.	OCCUPATION.	NO.
Shoe Operatives—		Clerk	6	Plumber	1
(a) Clickers	6	Currier	5	Porter (House) ...	1
(b) Lasters	11	Dental Mechanic...	1	Postman	1
(c) Finishers	6	Draughtsman	1	Printer's Folder ...	1
(d) Roughstuff		Dressmaker	2	Schoolchild	14
and Pressmen...	4	Drover	1	Shop Assistant ...	2
(e) Warehouse		Engineer	4	Stoker	1
and General	5	Ex-sailor	1	Store Keeper	2
(f) Female		Ex-soldier	1	Tailor	1
Workers	21	Gas Engine		Teacher	1
	53	Erector	1	Tramp	1
Baker	1	Grave Digger	1	Typist	1
Barman.....	1	Harness Maker ...	1	No Occupation ...	2
Blouse Maker	1	Houseworker	24		
Boot Polish		Labourer	3		
Worker	2	Licensed Victualler	2		
Box Maker	1	Lorryman	3		
Bricklayer	1	Maltster	1		
Brush Maker	1	Mechanic	1		
		Platelayer	1		
				Total	150

In the next two tables the classification of boot and shoe operatives is the same as in table T7, *i.e.*, (a) Clickers, (b) Lasters, (c) Finishers, (d) Pressmen and Roughstuff Workers, and (e) General and Warehousemen.

TABLE T8. NORTHAMPTON, 1909-1921.

PULMONARY TUBERCULOSIS. DEATHS AMONGST SHOE OPERATIVES.
CLASSIFICATION.

Year	NO. OF DEATHS.			CLASSIFICATION OF MALES.				
	Total	Males	Females	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>
1909 ...	46	32	14	10	6	9	3	4
1910 ...	41	31	10	8	6	8	2	7
1911 ...	49	35	14	8	7	9	—	11
1912 ...	53	38	15	7	11	14	1	5
1913 ...	38	26	12	9	5	8	—	4
1914 ...	72	52	20	8	16	18	4	6
1915 ...	52	31	21	12	5	7	2	5
1916 ...	49	38	11	8	10	5	3	12
1917 ...	56	46	10	7	8	12	6	13
1918 ...	84	60	24	8	19	16	6	11
1919 ...	40	28	12	3	7	12	2	4
1920 ...	34	24	10	4	7	6	1	6
1921 ...	32	24	8	4	8	9	—	3
Totals	646	465	181	96	115	133	30	91

TABLE T9. NORTHAMPTON, 1909-1921.

PULMONARY TUBERCULOSIS. NOTIFIED CASES INVESTIGATED AMONGST SHOE OPERATIVES. CLASSIFICATION.

Year	NO. OF CASES.			CLASSIFICATION OF MALES.				
	Total	Males	Females	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>
1909 ...	62	40	22	9	8	15	1	7
1910 ...	57	38	19	14	13	9	—	2
1911 ...	73	50	23	11	17	18	1	3
1912 ...	93	62	31	14	19	17	3	9
1913 ...	91	61	30	16	6	24	6	9
1914 ...	105	69	36	15	16	21	4	13
1915 ...	91	62	29	8	16	12	8	18
1916 ...	63	43	20	6	10	9	8	10
1917 ...	74	57	17	8	14	22	7	6
1918 ...	91	56	35	4	11	8	2	31
1919 ...	63	42	21	2	9	10	3	18
1920 ...	81	56	25	7	19	20	2	8
1921 ..	53	32	21	6	11	6	4	5
Totals	997	668	329	120	169	191	49	139

TABLE T10. NORTHAMPTON, 1921.

PULMONARY TUBERCULOSIS. IMMEDIATE RESULTS OF SANATORIUM TREATMENT AMONGST CASES WHICH LEFT THE SANATORIUM DURING THE YEAR.

Disease reported to be :—	NUMBER.	PER CENT.	
Arrested	13	32·5	} 65·0 %
Improved	13	32·5	
Not Improved	13	32·5	
Result not known	1	2·5	
Total	40	100·0	

TABLE TII. NORTHAMPTON, 1876-1921.

DEATH-RATES FROM PULMONARY AND OTHER FORMS OF TUBERCULOSIS IN 1916-1921 AND IN EACH OF THE EIGHT PRECEDING QUINQUENNIA.

Quinquennial Periods.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.
1876—1880	1.93	0.51
1881—1885	1.81	0.20
1886—1890	1.60	0.39
1891—1895	1.56	0.30
1896—1900	1.45	0.30
1901—1905	1.25	0.37
1906—1910	1.19	0.31
1911—1915	1.27	0.29
1916	1.47	0.37
1917	1.74	0.29
1918	2.28	0.38
1919	1.29	0.27
1920	1.06	0.13
1921	1.06	0.17

TABLE TI2. NORTHAMPTON, 1921.

TUBERCULOSIS. DEATHS IN EACH WARD FROM PULMONARY AND OTHER FORMS OF THE DISEASE.

WARD.	PULMONARY.			OTHER FORMS.			TOTAL.		
	M.	F.	Total	M.	F.	Total	M.	F.	Total
Abington	2	3	5	—	2	2	2	5	7
Castle	10	3	13	1	—	1	11	3	14
Delapre	2	2	4	1	—	1	3	2	5
Kingsley	1	4	5	1	—	1	2	4	6
Kingsthorpe	2	5	7	1	—	1	3	5	8
North	7	3	10	1	1	2	8	4	12
St. Crispin's	7	—	7	3	—	3	10	—	10
St. Edmund's	3	3	6	—	—	—	3	3	6
St. James'	10	3	13	—	—	—	10	3	13
St. Lawrence's	6	3	9	1	—	1	7	3	10
St. Michael's	2	9	11	1	1	2	3	10	13
South	8	—	8	2	—	2	10	—	10
Totals ...	60	38	98	12	4	16	72	42	114

TABLE T13. NORTHAMPTON, 1921.
PULMONARY TUBERCULOSIS. OCCUPATIONAL MORTALITY
IN AGE PERIODS.

OCCUPATION.	YEARS OF AGE.									TOTAL ALL AGES.
	un- der 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 & over	
MALES :— SHOE OPERATIVES (Total)	—	—	1	2	7	6	7	1	—	24
(a) Clickers	—	—	—	—	—	1	3	—	—	4
(b) Lasters	—	—	1	—	2	2	3	—	—	8
(c) Finishers	—	—	—	1	4	3	—	1	—	9
(d) Pressmen and Roughstuff Workers	—	—	—	—	—	—	—	—	—	—
(e) General and Warehousemen ...	—	—	—	1	1	—	1	—	—	3
Army Pensioner	—	—	—	—	6	3	—	—	—	9
Baker	—	—	1	—	—	—	—	—	—	1
Brewer's Maltster	—	—	—	—	—	—	1	—	—	1
Bricklayer	—	—	—	—	—	—	2	—	—	2
Brushmaker	—	—	—	1	—	—	—	—	—	1
Chauffeur	—	—	—	—	—	1	—	—	—	1
Clerk	—	—	—	—	2	—	—	—	—	2
Drover	—	—	—	—	—	1	—	—	—	1
Engineer	—	—	—	—	—	—	—	1	—	1
Grave Digger	—	—	—	—	—	—	—	—	1	1
Harness Maker	—	—	—	—	—	—	1	—	—	1
Labourer	—	—	—	—	1	1	—	2	—	4
Leather Dresser	—	—	—	—	1	1	—	—	—	2
Licensed Victualler	—	—	—	—	—	—	1	—	—	1
Motor Driver	—	—	—	—	—	—	1	—	—	1
Motor Fitter	—	—	—	—	—	1	—	—	—	1
Platelayer	—	—	—	—	—	1	—	—	—	1
Porter	—	—	1	—	—	—	—	—	—	1
Stockman	—	—	—	—	—	—	1	—	—	1
Stoker	—	—	—	—	—	—	—	—	1	1
Tailor	—	—	—	—	—	—	1	—	—	1
No occupation	1	—	—	—	—	—	—	—	—	1
Totals	1	—	3	3	17	15	15	4	2	60

TABLE T13—continued.

OCCUPATION.	YEARS OF AGE.									TOTAL ALL AGES.
	un- der 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 & over	
FEMALES :—										
Shoe Operatives	—	—	—	6	2	—	—	—	—	8
Barmaid	—	—	—	—	1	—	—	—	—	1
Blouse Packer	—	—	—	1	—	—	—	—	—	1
Clerk	—	—	—	1	—	—	—	—	—	1
Domestic Servant	—	—	—	—	1	1	—	—	—	2
Housewife	—	—	—	1	9	4	2	1	1	18
Leather Dresser	—	—	—	—	—	1	—	—	—	1
Pinafore Maker	—	—	—	—	1	—	—	—	—	1
Schoolchild	—	1	—	—	—	—	—	—	—	1
Shoe Polish Worker.....	—	—	1	—	—	—	—	—	—	1
Shop Assistant	—	—	1	—	—	—	—	—	—	1
Typist	—	—	—	2	—	—	—	—	—	2
Totals	—	1	2	11	14	6	2	1	1	38
SHOE OPERATIVES :—										
Males	—	—	1	2	7	6	7	1	—	24
Females	—	—	—	6	2	—	—	—	—	8
Totals	—	—	1	8	9	6	7	1	—	32
All occupations (exclu- sive of Houseworkers and Schoolchildren) :—										
Males	1	—	3	3	17	15	15	4	2	60
Females	—	—	2	10	4	1	—	—	—	17
Totals	1	—	5	13	21	16	15	4	2	77
TOTAL DEATHS :—										
Males	1	—	3	3	17	15	15	4	2	60
Females	—	1	2	11	14	6	2	1	1	38
Totals	1	1	5	14	31	21	17	5	3	98

TABLE T14. NORTHAMPTON, 1921.

CLASSIFICATION OF TUBERCULOSIS DEATHS ACCORDING TO THE PART OF
THE BODY STATED TO BE MOST AFFECTED.

	M.	F.	TOTAL.
Meninges	6	4	10
Peritoneum and Intestines	2	—	2
Spinal Column	1	—	1
Joints	—	—	—
Other Organs	3	—	3
Total	12	4	16
Lungs	60	38	98
Total	72	42	114

TABLE T15. NORTHAMPTON, 1921.

TUBERCULOSIS DEATHS. SHOWING THE YEAR IN WHICH THE CASE WAS FIRST NOTIFIED TO THE MEDICAL OFFICER OF HEALTH.

YEAR OF NOTIFICATION.	M.	F.	TOTAL.
(1) PULMONARY TUBERCULOSIS :—			
1905	1	...	1
1910	1	...	1
1913 .....	...	1	1
1914	2	1	3
1915	4	1	5
1916	2	1	3
1917	4	1	5
1918	5	1	6
1919	3	6	9
1920	13	8	21
1921	20	17	37
Not notified	5	1	6
Total	60	38	98
(2) TUBERCULOSIS OTHER THAN PULMONARY			
1914 .....	...	1	1
1919	1	...	1
1920	2	...	2
1921	3	1	4
Not Notified	6	2	8
Total	12	4	16

APPENDIX II.

**REPORT OF THE ASSISTANT MEDICAL OFFICER FOR
MATERNITY AND CHILD WELFARE
FOR THE YEAR 1921.**

To the Medical Officer of Health.

SIR,

My report for the year 1921 on the maternity and child welfare work in the borough is now completed and is presented to you for incorporation in your Annual Report.

EMILY H. SHAW.

PUBLIC HEALTH OFFICE,

MAY, 1922.

The term infant mortality is used to signify the annual number of deaths of children under the age of one year, per thousand births registered. During 1921 the deaths of 124 infants were registered, making the infant mortality 65.9. This is the lowest figure on record for the town and compares well with the figures for the rest of the country as will be seen in Table M. & C.W. 1.

Infant
Mortality

The causes of death of these infants are shown in Table M. & C. W. 2, from which it will be seen that premature birth is easily the chief cause; marasmus and wasting diseases, bronchitis and pneumonia are responsible for a considerable proportion. A gratifying feature is the comparatively small numbers of deaths from diarrhoea, enteritis, and gastritis. The summer was abnormally hot, long, and dry, all of which conditions contribute towards the prevalence of diarrhoea, enteritis and gastritis and yet only fifteen deaths occurred from these causes. The only summer of recent years with which that of 1921 is comparable is that of 1911, when eighty-two infants died as a result of these diseases. Stillbirths and deaths following premature birth are still far too frequent and appear to depend very largely on the condition of the mother. The causes of these deaths are practically always pre-natal or neo-natal.

Dr. Eardley Holland finds that 51 per cent. of these deaths and stillbirths are due to complications during labour. Many of these could be prevented by suitable ante-natal treatment. Another 12 per cent. he finds due to toxæmias of pregnancy and chronic renal disease. This number could also be reduced by

ante-natal treatment. Sixteen per cent. of the deaths are accounted for by syphilis and it is hoped that the campaign which is now going on throughout the country against venereal disease will bring down this number very considerably. The remaining 22 per cent. he finds due to causes which he considers at present to be unavoidable. Dr. Holland states that in his opinion over 50 per cent. of the deaths of stillborn and premature babies could be prevented by suitable ante-natal treatment and more skilful treatment during labour. We hope by reason of the pre-natal clinics now being held to reduce the number in this town.

Dead on
Visit

Fifty-one of the 124 infants who died were found to be dead when the health visitor called about the tenth to fourteenth day after birth. Of these, twenty were the children of primaparæ and thirty-one of multiparæ. Twenty-seven were premature births. Eleven of these premature babies were twins and two were illegitimate.

Nineteen of the babies who died between the ages of fourteen days and one year were the children of primaparæ and fifty-four of multiparæ. Thirteen were premature births, four were multiple, and six were illegitimate.

Notification
of Births

The number of births notified during 1921 was 1,805, including sixty-four stillbirths. Of the total number, 461 or 25.5 per cent. were notified by medical practitioners, 1,179 or 65.3 per cent. by certified midwives and 165 or 9.2 per cent. by parents and others. The number notified by medical practitioners continues, as during last year, to diminish.

Table M. & C.W. 4 is continued as in former years and classifies the births investigated by the health visitors. This includes 1,633 or 90.5 per cent. of the notified and 158 or 81 per cent. of the non-notified births, making a total of 1,791 or 90.2 per cent. of the number of births of which information has been received. This number includes 62 or 3.4 per cent. stillbirths of which 37 or 59.6 per cent. were premature. The 1,791 births investigated represent 1,759 separate confinements. 663 (38 per cent.) of these were first confinements, 105 (5.9 per cent.) were premature confinements and 31 (1.7 per cent.) resulted in multiple births (thirty twins and one triplets). 82 (4.6 per cent.) were illegitimate.

Of the 105 premature confinements, thirty-six occurred in primaparæ resulting in forty-two births. Of these twenty-seven were live births and fifteen stillbirths. Sixty-three premature births occurred among multiparæ—forty-one live and twenty-two stillbirths. Amongst the multiparæ three cases had been preceded by one and two by four stillbirths, one by one miscarriage and one by two, one by one premature birth and one by two, and one by both a stillbirth and premature birth.

Sixty-two of the eighty-two illegitimate births occurred in primaparæ.

The following figures give an idea of part of the work of the health visitors during the year :—

Home
Visitation

Total number of visits paid to households in which a birth is known to have occurred (the visit in the case of twins being counted as one)	8,994
Of these, first visits comprised	1,756
And subsequent visits	7,238
Total number of notified births visited.....	1,633
Total number of non-notified births visited.....	158

It was found on the first visit that fifty-one of the infants (2.9 per cent. of the live births) had already died.

In addition to these the health visitors have also paid 541 visits to expectant mothers and 705 special visits (*i.e.*, to cases of ophthalmia neonatorum, measles, whooping cough, puerperal fever, summer diarrhoea, influenza, pneumonia, etc.).

On 25th May, one of the health visitors (Mrs. Holland) resigned. Miss Young was appointed to replace her and commenced duties on 16th June.

The supervision of midwives was carried out by me during the year, when sixty-seven routine and eighteen special visits were paid. Twenty-six midwives notified their intention to practice during 1921. As before, the midwives attached to the Queen Victoria Nursing Institution as a rule remained only a short period and consequently all these midwives were not practising at the same time. This number also includes those who notified their intention to practise but had no cases. The number of untrained midwives is three and as in the previous years they, and most of the others practising independently, do very little work. The greater number of cases is attended by the midwives attached to the Queen Victoria Nursing Institution and three or four of the independent midwives.

Midwives

The case of one midwife who had failed to obey the rules of the Central Midwives Board was heard by the Board on 13th May, when she was censured and further reports on her conduct asked for.

Table M. & C.W. 5 gives as before the number and character of the notifications received in accordance with the Midwives Acts.

The home visitation by the health visitors continues on the same lines as before, except that a special effort is being made to obtain information about any abnormal birth even in the larger houses. With regard to the maternity and infant welfare centres some changes have been made since the appointment of an Assistant Medical Officer. The appointment of the four medical practitioners who had assisted heretofore with the medical work has been terminated and the supervision of the medical side of the centres has become part of duties of the Assistant Medical Officer. In this way the work is becoming more uniform in the

General
Arrange-
ments

centres and a larger number of medical consultations is being held. There are now eight centres in the town. The rooms at Commercial Street were given up in favour of ones at the Hull Memorial Buildings on 24th February, the centre at St. Edmund's Hall was transferred to Artizan Road Chapel on 3rd November, and the one at Agnes Road to St. Sepulchre's School Buildings on 20th April. The day and time of meetings with average attendance of mothers, babies and toddlers and average number of consultations per session are shown in Table M. & C.W. 6.

At each centre a meeting is held weekly, a health visitor attending each week. The doctor attends once a fortnight and on that day a second health visitor is also present to take charge of the weighing room and to give advice to the mothers concerning the clothing, etc. of the baby. In this way it is found possible for an average of about twenty-eight mothers with babies to consult the doctor. Some pre-natal mothers are also seen and advised with regard to their own health.

The social side of the work is in the hands of the ladies of the Voluntary Association, who give the mothers advice and assistance on non-medical affairs. On the day when the doctor attends no prearranged talk is given to the mothers, but individually they seek advice from both the health visitors and the voluntary workers. On the alternate session when the doctor is not present, a talk is given to the mothers. A series of simple lectures on health subjects has been prepared by the Assistant Medical Officer for the health visitors to deliver to the mothers on one day in the month at each of their centres. On the remaining day the leader of the centre usually finds a lady, non-medical, to talk on domestic and social subjects.

Day Nursery

The Day Nursery was closed on 21st May, 1921. In the report for last year will be found a statement relative to the institution.

Maternity Homes

The maternity homes at Colwyn Road and Rosslyn House continue to receive cases as heretofore. As a result of consultation with the Chairman and Superintendent of the homes, the Maternity and Child Welfare Committee decided in June to make itself responsible for the whole or part of the fees of certain cases recommended by the Medical Officer of Health for admission to the homes. Up to the 31st December, 1921, seven cases were admitted at the total cost to the Borough of £19 2s. od.

During 1921 a total of 194 cases were treated at Colwyn Road Home. Of these 158 belonged to Northampton and 36 were admitted from outside the borough. At Rosslyn House the cases numbered sixteen. Of these, nine belonged to the borough and seven outside. 114 of the cases were attended by medical practitioners and 96 by midwives alone.

A pre-natal clinic has been held at the Queen Victoria Nursing Institution on alternate Wednesday mornings since March. Ninety women have attended, all patients of the midwives attached to the institution. A weekly pre-natal clinic for the patients of midwives practising independently in the town was held at the Day Nursery, Newland, from March until the institution was closed on 21st May. From that date until the end of the year no other suitable premises for such a clinic has been found and pregnant women were seen and advised at the various welfare centres.

Pre-natal
Clinics

During the year the School Dentist has held sessions on two evenings weekly for the benefit of pregnant and nursing women recommended for dental treatment by the Assistant Medical Officer. The women generally undertake to pay by small instalments for the cost of the materials used, to which is added a small sum for the services of the dentist. Unfortunately the payments have not been well kept up by the majority of the patients. The collection of money has been left in the hands of the health visitors, but it is felt that they are unable to bring sufficient pressure to bear upon the women for payment as they are naturally most anxious not to jeopardise their welcome into the homes. A new scheme is now under consideration by which it is hoped to bring the payments more up-to-date. During the latter half of the year the School Dentist has undertaken to treat the children under school age recommended by the Assistant Medical Officer. This is felt to be a step in the right direction for it is frequently before the child reaches school age that defects appear in the teeth, which treated at once lead to no serious effects, but neglected give rise to the serious dental caries seen in both first and second teeth.

Dental
Work

The first session was held on 4th October, 1920, and the following is the summary of work done from that date to 31st December, 1921 :—

	MOTHERS.	CHILDREN.	TOTAL.
Number seen	62	11	73
Number treated	62	10	72
Number of attendances ...	635	11	646
Number of teeth extracted	485	3	488
Number of administrations of local anæsthetic	163	1	164
Number of fillings	241	—	241
Number of linings	57	—	57
Number of root fillings.....	1	—	1
Number of teeth treated with nitrate of silver ...	135	49	184
Number of dressings	203	—	203
Number of scalings	35	—	35
Number of artificial plates...	65	—	65

	MOTHERS.	CHILDREN.	TOTAL.
Number of plate repairs ...	1	—	1
Number of teeth on plates...	533	—	533
Number of other operations	29	—	29
Number completed	38	10	48
Number partly completed, continued to 1922	24	—	24

The cost of material for this work amounts to £115 19s. 1d. ; bills amounting to £131 12s. 8d. have been sent to the patients in sixty different accounts, of this £39 15s. 5d. has been received.

Assisted
Milk
Supply

The supply of milk to necessitous pregnant and nursing mothers has continued through the year. For the first three months it was given on the recommendation of the health visitors after they had satisfied themselves that the income of the parents was not above a fixed limit. It was found, however, that the income was frequently stated incorrectly and a number of mothers obtained this assistance upon evidence which was not correct. In April a circular was received from the Ministry of Health urging drastic reductions, with the result that a sub-committee of the Statutory Committee was formed especially to deal with these cases. Forms of application were printed and also forms of inquiry for sending to employers for verification of the statements made as to income. A definite scale was adopted and approved by the Minister of Health and in cases where the income was above that scale the milk was not allowed. Until October, 1921, the milk was supplied by the patient's own milkman but in October the whole supply was put into the hands of three firms who agreed to deliver the milk at the patient's own home at a reduced rate. Each firm undertook to supply a certain specified area of the town. The cost of the milk amounted to about £383 2s. 1d. for the year. This is not absolutely correct as some of the bills paid in the first quarter were considerably overdue, while at the end of the year the three firms supplying the milk were well up-to-date. Consequently, the sum stated is rather above the amount spent for the year. Milk was supplied in 241 new cases during the first four months of the year under the old scheme. Under the new scheme, since 1st May, 357 applications have been considered, of which 279 (including renewals) have been granted and 78 refused. A total quantity of 19,058½ pints has been granted, which will be found to compare favourably with other towns of approximately the same population, *e.g.*, Gloucester gave nearly 27,000 pints of free milk, 14,000 pints at a reduced rate and over £50 worth of dried milk. Northampton gave no milk at reduced price and gave no dried milk.

“Cow and Gate” dried milk is still sold at the Public Health Office at cost price, on the recommendation of the Assistant Medical Officer. During the year 7,750 one pound packets have been sold to 225 separate customers. This represents a weight of 3 tons 9 cwts. 22 lbs. at a cost of £832 2s. 6d.

In June, 1920, an arrangement was made between the Maternity and Child Welfare Committee and the Education Committee whereby free meals were provided for pregnant and nursing mothers at the existing school canteen at a cost of 1/3 per meal per day. During 1920 eight mothers attended the canteen, but in 1921 there were forty-two fresh names on the books. On the recommendation of the Assistant Medical Officer, mothers who are nursing could attend these dinners till the child was nine months old, also pregnant women during the last three months of pregnancy. A fresh arrangement has recently been made whereby the applications of all women applying for meals are considered by the milk sub-committee and granted or refused according to the income of the applicant. These dinners are much appreciated and a marked improvement is seen in the health of the mothers having them.

Free Meals
for Nursing
and
Pregnant
Mothers

Eight cases of this disease were notified as occurring during the year in the borough (together with two admitted to the General Hospital from the county). Of these eight patients, two died and six recovered. Five were treated at the General Hospital, one at the Workhouse Infirmary, and two remained in their own homes. In addition to these cases of puerperal fever there was one fatal case of eclampsia, one of ante and post partum hæmorrhage, and one of acute bronchitis in a woman twenty-eight days after parturition. These three women were treated and died in their own homes.

Puerperal
Fever

Twenty-eight notifications of this disease were received. Of these, three were made by midwives alone, twenty-three by medical practitioners, and two by both doctor and midwife. Thirteen cases occurred amongst female babies and fifteen amongst males. In one the child was sixteen days old and in another fourteen days old at the time of notification. Fifteen were between seven and fourteen days old and eleven under seven days; of these one was only three hours old. In one case the child was illegitimate and the presence of venereal disease was suspected in five cases. One child was treated at the Workhouse Infirmary and three at the General Hospital. In twenty patients recovery has been more or less complete. Three of the babies have died. One case is still in the Workhouse Infirmary and one is still being treated at the General Hospital. Although the discharge cleared up quite satisfactorily one child has a squint. Two of the children have left the town, when last seen the eyes were quite clear.

Ophthalmia
Neona-
torum

In these cases no bacteriological examination was made of the discharge, the diagnosis being made on clinical grounds only.

TABLE M. & C.W. 1. ENGLAND AND WALES AND NORTHAMPTON, 1917-1921.
 INFANT MORTALITY. COMPARISON BETWEEN THE YEARS OF THE QUIN-
 QUENNium.

(From the figures of the Registrar General).

	INFANT MORTALITY.				
	1917	1918	1919	1920	1921
England and Wales	97	97	89	80	83
Great Towns (including London)	104	106	93	85	87
Smaller Towns	93	94	90	80	84
London	103	107	85	75	80
Northampton	87	92	82	74	66

TABLE M. & C.W. 2. NORTHAMPTON, 1912-1921. INFANT MORTALITY.

CAUSES OF DEATH.	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921
Marasmus, Inanition, Debility & Atrophy	23	27	21	37	17	19	17	21	31	23
Convulsions	6	10	5	10	3	4	4	2	8	6
Bronchitis and Pneumonia.....	26	20	33	63	26	35	37	33	31	19
Whooping Cough	7	4	...	6	4	1	6	2	5	2
Measles	8	9	6	20	...	9	...	...	2	...
Premature Birth	31	42	33	34	39	25	28	34	47	37
Diarrhoea, Enteritis and Gastritis	12	36	33	29	10	11	9	2	14	15
All other causes	27	27	33	37	28	24	20	22	28	22
TOTAL DEATHS	140	175	164	236	127	128	121	116	166	124
TOTAL BIRTHS	1935	1868	1857	1754	1893	1471	1313	1411	2248	1881
INFANT MORTALITY	72.3	93.7	88.3	134.2	67.1	87.0	92.2	82.2	73.8	65.9

TABLE M. & C.W. 3. NORTHAMPTON, 1921.

COMPARISON BETWEEN THE NUMBER OF BIRTHS WHICH WERE REGISTERED
AND THOSE WHICH WERE NOTIFIED.

	M.	F.	TOTAL.
Number of Births Registered	976	905	1881
Number of Births Notified	939	866	1805
Number of Live Births Notified	911	830	1741

TABLE M. & C.W. 4. NORTHAMPTON, 1921.

NOTIFICATION OF BIRTHS. NUMBER AND CLASSIFICATION OF NOTIFIED AND NON-NOTIFIED CASES OF BIRTH, THE CIRCUMSTANCES ATTENDING WHICH WERE THE SUBJECT OF INVESTIGATION.

Classification.	LIVE BIRTHS.								STILLBIRTHS.							
	MATURE.				PREMATURE.				MATURE.				PREMATURE.			
	Single.		Multiple.		Single.		Multiple.		Single.		Multiple.		Single.		Multiple.	
	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.
	1546	75	40	0	46	3	19	0	24	1	0	0	30	3	4	0
	1621		40		49		19		25		0		33		4	
	1661				68				25				37			
	1729								62							
Totals.	1791															

TABLE M. & C.W. 5. NORTHAMPTON, 1921.
MIDWIVES ACTS. NOTIFICATIONS RECEIVED FROM MIDWIVES.

NATURE OF REPORT.	MIDWIVES NOTIFYING.	NO. OF REPORTS.	REMARKS.
Records of Sending for Medical Help ...	20	277	Mother's condition 193 Infant's condition 84
Notifications of Still- birth	9	29	Full Term 11 Premature 18
Notifications of Death	6	9	Mothers..... 1 Infants 8
Notifications of Artificial Feeding ...	7	22	Mother's condition 18 Infant's condition 4
Notification of Liability to be a Source of Infection	1	1	—
Total	20	338	—

TABLE M. & C.W. 6. NORTHAMPTON, 1921.
MATERNITY AND INFANT WELFARE CENTRES. STATISTICS.

CENTRE.	DAY AND TIME OF MEETING.	AVERAGE ATTENDANCE PER WEEK.			Average Number consulting Doctor per Session.
		Mothers (incl. Expectant Mothers).	Expectant Mothers.	Babies and Toddlers.	
Abington Avenue	Thursdays, 2.30—4.30	48	4	46	30
Artizan Road (opened Nov. 3, formerly St. Edmund's).	Fridays, 2.30—4.30 ...	53	5	53	27
Doddridge Memorial	Tuesdays, 2.30—4.30 ...	49	5	54	25
Far Cotton.....	Fridays, 2.30—4.30 ...	33	4	34	24
Hull Memorial (opened Feb. 24, formerly Com- mercial Street).	Thursdays, 2.30—4.30	32	4	32	25
King Street	Wednesdays, 2.30—4.30	42	4	45	28
Kingsthorpe	Tuesdays, 2.30—4.30 ...	16	3	16	13
St. Sepulchre's (opened April 20, formerly Agnes Road).	Wednesdays, 2.30—4.30	51	5	55	21
Total		324	34	335	193

APPENDIX III.
STATISTICAL TABLES.

TABLE I. NORTHAMPTON, 1921.
SUMMARY OF ROUTINE WORK CARRIED OUT BY THE INSPECTORS OF THE
DEPARTMENT DURING THE YEAR.

	Number of Inspections, etc.	No. at which Nuisances, Con- traventions or Defects found
1.—Total Number of Inspections and Visits	14356	
2.—Number of Premises at which Nuisances were Found		1244
3.—Number of Houses Inspected.....	1649	1084
4.—Number of these Houses Repaired		299
5.—Number of these Houses Cleansed and Whitewashed		679
6.—Number of Houses Cleansed after Certificate of M.O.H. (Sec. 46, P.H.A. 1875)		15
7.—Number of First Visits made in consequence of Complaints by Residents	989	870
8.—Statutory Notices Served	644	
9.—Drains :—		
Tested by Smoke Test	92	78
Tested by Volatile Test	68	28
Tested by Water Test	4	2
Exposed under Sec. 41, P.H.A. 1875	18	18
Drains reported choked		118
Drains reconstructed		150
Drains repaired.....		60
Bath, lavatory or sink water pipes dis- connected from drains		1
New pans fixed to closets		44
Indoor soil pipes abolished		1
Closets supplied with flushing apparatus		7
10.—Contraventions of Bye-laws :—		
Animals kept so as to be a nuisance		3
Animals kept in contravention of Bye-laws		2
Other Contraventions		0
11.—Other Nuisances :—		
Overcrowding in houses		18
Yard pavings re-laid or repaired		126
Spoutings repaired or renewed		101
New slop sinks fixed		49
Inspections of courts and alleys	0	0
Houses supplied with town water		0
Accumulations of manure, etc., removed		33
Smoke Observations	5	0
Miscellaneous nuisances		603

TABLE I.—*continued.*

	Number of Inspections, etc.	No. at which Nuisances, Con- traventions or Defects found
12.—Factories and Workshops :—		
Number of Factories Inspected	8	7
Number of Workshops Inspected	103	13
Number of Workplaces Inspected	10	0
Number of Outworkers' Premises Inspected.....	70	2
13.—Dairies, Cowsheds, and Milkshops :—		
Number of Inspections	229	16
Number of New Registrations	30	
14.—Bakehouses—Number of Inspections	209	48
15.—Slaughterhouses :—		
Number of Inspections while Slaughtering was in Progress	3444	2
Number of other Inspections	105	32
16.—Other Premises where Food is Manufactured or Stored—Number of Inspections	1175	16
17.—Food and Drugs Acts—Number of Samples sent to Analyst	223	25
18.—Infectious Diseases—Visits to Infected Houses—		
(a) First visits for investigation	459	
(b) Weekly visits to secure isolation	309	
(c) Visits to control disinfection	419	
Houses stripped under I.D.P. Act	273	
19.—Tuberculosis—Houses stripped, etc. under Tuber- culosis Regulations, etc.	114	
20.—Number of Visits for Inspection of :—		
(a) Schools	22	4
(b) Public Lavatories	61	1
(c) Van-dwellers	4	2
(d) Cinemas, etc.	22	3
21.—House-to-House Inspection—Number of Houses Inspected (excluding Housing Survey)	0	
Number of Inspections under Housing Survey...	3217	
Houses Cleansed and Whitewashed		0
Defective Houses Repaired		0
Houses unfit for Human Habitation reported to M.O.H. under :—		
(a) Sec. 17, H.T.P. Act, 1909	38	38
(b) Sec. 28, H.T.P. Act, 1919	0	0

TABLE 2. NORTHAMPTON, 1921.

DRAIN EXAMINATION UNDER SECTION 41 OF THE PUBLIC HEALTH ACT, 1875.

SITUATION OF PREMISES.	RESULT OF EXAMINATION.	REMARKS.
Alpha Street, 7, 9, & 11	Defective	Work not complete at end of year.
Arthur Street, 12	Defective	Reconstructed.
Bath Row, 2, 4, 6, 8, & 10	Defective	Work not complete at end of year.
Market Street, 138, 140, 142, 144, & 146	Defective	Reconstructed.
Park Street, 6	Defective	Reconstructed.
Regent Street, Factory between Nos. 43 & 49	Defective	Reconstructed.
Vernon Terrace, 1 & 3	Defective	Reconstructed.
No. of Drains examined .....18		

TABLE 3. NORTHAMPTON, 1921.
RECONSTRUCTION OF DRAINS.

SITUATION OF PREMISES.	NO. OF HOUSES.
Alliston's Gardens, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43...	10
Alpha Street, 27, 29, 31	3
Billing Road, 51.....	1
Black Lion Place, 1, 2, 3, 4, 5, 6	6
Black Lion Terrace, 3	1
Bouverie Street, 17	1
Broad Street, 1	1
Cattle Market Road, 30, 32	2
Charles Street, 3, 5	2
Cheyne Walk, All Saints' Vicarage	1
Clare Street, 61, 63, 65, 67, 69, 71	6
Compton Street, 2, 4, 6, 8	4
Devonshire Street, 38, 40, 42, 44, 46	5
Dover Street, 10, 12, 14	3
Florence Road, 15	1
Franklin's Gardens	1
Gas Street, 21, 21a, 32	3
Gray Street, 12	1
Grove Road, 31, 33	2
Hervey Street, 49, 51	2
Horsemarket, 36, 38	2
Junction Road, 92, 94	2
Kinburn Place, 18, 20, 22, 24	4
Kingsley Road, 26	1
Lady's Lane, 17, 19, 21	3
Main Road, " Hind Inn "	1
Maple Street, 32, 34, 36	3
Market Street, 103, 105, 107, 109, 111, 113, 138, 140, 142, 144, 146	11
Mount Gardens, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.....	13
Mounts, Upper, 21, 23, 25	3
Mounts, Upper, Court IV. (Green's Yard), 1, 2, 3	3
New Town Road, 37, 39, 41	3
Northcote Street, 37, 39	2
Park Street, 6, 8	2
Perry Street, 26, 28, 30	3
Primrose Hill, 17, 18	2

TABLE 3—*continued.*

SITUATION OF PREMISES.	NO. OF HOUSES.
Regent Street, 47 (factory)	1
St. Andrew's Street, 19	1
St. George's Street, 43, 45, 47, 49, 51, 53, 55, 57.....	8
St. James' Square, 2, 4, 6, 8, 10, 12	6
St. James' Street, 10	1
Semilong Road, 101, 103	2
Silver Street, 35, 37, 39	3
Stanhope Road, 97	1
Vernon Street, 76 (factory)	1
West Street, 46, 48, 50, 52	4
Wellington Place, 17, 18	2
Wellington Street, 58, 60	2
William Street, 12, 14, 16, 18	4
Total	150

TABLE 4. NORTHAMPTON, 1921.

UN SOUND FOOD VOLUNTARILY SURRENDERED AND DESTROYED.

NATURE OF FOOD.	WEIGHT.			
	TONS.	CWTS.	QRS.	LBS.
Home Killed Beef	14	16	3	6
Imported Beef	—	9	0	10
Home Killed Mutton	—	10	3	21
Imported Mutton	—	3	2	17
Home killed Pork	5	15	3	12
Imported Pork	—	—	2	9
Home Killed Veal	—	2	0	21
Offal	2	2	0	19
Bacon	—	1	3	17
Fruit	—	11	2	20
Sausages	—	—	2	20
Cheese	—	—	2	6
Vegetables	—	—	1	2
Eggs	—	2	0	10
Yeast	—	1	0	0
Fish	4	16	0	6
Total	29	15	2	0
(599 surrenders)				
Also :—242 Rabbits ; 11 Turkeys ; 11 Geese ; 2,021 Tins of Food.				

TABLE 5. NORTHAMPTON, 1921.
FOOD AND DRUGS. SAMPLES TAKEN FOR ANALYSIS.
(a) INFORMAL SAMPLES.

NATURE OF SAMPLE.	TOTAL NUMBER.	NUMBER NOT GENUINE.
Ammoniated Tincture of Quinine ...	2	2
Baking Powder.....	4	—
Cream	11	3
Cream (preserved).....	5	—
Flour	6	—
Rice	4	—
Total	32	5

(b) OFFICIAL SAMPLES.

NATURE OF SAMPLE.	TOTAL NUMBER.	NUMBER NOT GENUINE.
Ammoniated Tincture of Quinine ...	2	2
Butter	6	—
Cream	3	—
Cream (preserved)	1	—
Dripping	4	—
Flour	2	—
Lard	4	—
Margarine	4	—
Milk	148	17
Milk (Separated)	1	—
Potted Meat	4	1
Sugar	4	—
Vinegar	8	—
Total	191	20

(c) ALL SAMPLES.

NATURE OF SAMPLE.	TOTAL NUMBER.	NUMBER NOT GENUINE.
Informal Samples	32	5
Official Samples	191	20
Total	223	25

TABLE 6. NORTHAMPTON, 1921.

ZYMOTIC DISEASES. DEATHS IN MUNICIPAL WARDS.

WARD	Smallpox	Measles	Scarlatina	Whooping Cough	Diphtheria	Typhoid Fever	Diarrhoea (Under 2 years)	Total
Abington	1	1
Castle	2	...	4	6
Delapre	1	...	2	3
Kingsley	1	...	1	...	2	4
Kingsthorpe	1	...	...	...	1
North	1	1	1	2	5
St. Crispin's	1	...	1	2
St. Edmund's	1	...	...	1
St. James'	1	...	...	1
St. Lawrence's	...	1	...	...	1	...	2	4
St. Michael's	1	...	...	...	1
South	1	...	...	2	3
Borough	1	1	4	9	1	16	32

TABLE 7. NORTHAMPTON, 1921.

MEASLES AND RUBELLA, AND WHOOPING COUGH. MONTHLY INCIDENCE
AND MORTALITY.

MONTHS.	MEASLES AND RUBELLA.		WHOOPING COUGH.	
	CASES REPORTED*	DEATHS.	CASES REPORTED*	DEATHS.
January	5	—	17	—
February	7	—	13	1
March	4	—	10	1
April	1	—	37	1
May	2	—	8	—
June	—	—	11	—
July	1	—	14	—
August (holiday)...	—	—	—	—
September	4	—	7	—
October	8	1	6	—
November.....	4	—	12	1
December	1	—	8	—
Total	37	1	143	4

*Reported from Public Elementary Schools.

TABLE 8. NORTHAMPTON, 1917—1921.

DIARRHŒA AND ENTERITIS. DEATHS AND DEATH-RATES IN EACH
YEAR OF THE QUINQUENNium.

	1917	1918	1919	1920	1921
Deaths	11	7	3	11	16
Death-rate per 1,000					
Births	7.5	5.3	2.1	4.9	8.5
Death-rate per 1,000					
Living	0.13	0.09	0.03	0.03	0.17

TABLE 9. NORTHAMPTON UNION, 1901—1920.

VACCINIA. TABLE SHOWING THE NUMBER OF CHILDREN PER CENT. WHO HAVE NOT BEEN VACCINATED, AFTER DEDUCTING THE NUMBER DEAD BEFORE VACCINATION TOOK PLACE.

YEAR.	PROPORTION PER CENT.	YEAR.	PROPORTION PER CENT.
1901	66.6	1911	82.3
1902	58.7	1912	84.7
1903	62.9	1913	80.1
1904	76.2	1914	82.7
1905	66.8	1915	83.8
1906	67.1	1916	83.8
1907	76.8	1917	83.7
1908	78.3	1918	83.0
1909	80.5	1919	83.6
1910	81.8	1920	87.4

TABLE 10. NORTHAMPTON, 1912—1921.

SCARLATINA.

Year.	Notifi- cations.	Attack Rates per 1,000.	Deaths.	Death-rates	Fatality.	Numbers Removed to Hospital.	Removal rates per cent.
1912	279	3.08	1	0.01	0.3	229	82.1
1913	435	4.79	6	0.07	1.4	282	64.8
1914	365	4.02	2	0.02	0.5	226	61.9
1915	681	7.54	8	0.09	1.2	335	49.5
1916	262	3.04	2	0.02	0.8	187	71.4
1917	59	0.71	...	...	...	37	62.7
1918	37	0.46	1	0.01	2.7	26	70.3
1919	71	0.80	...	...	...	44	62.0
1920	62	0.66	...	...	...	49	79.0
1921	118	1.28	1	0.01	0.8	89	75.4

Figures given in this Table refer to notifications received without reference to corrected diagnosis, but are exclusive of military cases.

TABLE II. NORTHAMPTON, 1921.

SCARLATINA. INCIDENCE OF NOTIFIED CASES OF THE DISEASE IN CERTAIN AGE GROUPS.

	Under 1 Year	From 1 to 5 years	From 5 to 15 years	From 15 to 25 years	25 and over	Total
Males ...	1	11	35	2	1	50
Females	1	15	41	4	7	68
Total ...	2	26	76	6	8	118

TABLE 12. NORTHAMPTON, 1912—1921.

TYPHOID FEVER.

Year.	Notifica- tions.	Attack Rates per 1,000.	Deaths.	Death- rates.	Fatality.	Numbers removed to Hospital.	Removal rates per cent.
1912	16	0·18	2	0·02	12·5	12	75·0
1913	27	0·30	4	0·04	14·8	15	55·6
1914	28	0·31	...	...	...	19	67·9
1915	18	0·20	5	0·05	27·8	13	72·2
1916	8	0·09	1	0·01	12·5	4	50·0
1917	6	0·07	1	0·01	16·7	3	50·0
1918	7	0·09	...	...	...	7	100·0
1919	3	0·03	...	...	...	1	33·3
1920	1	0·01	...	...	...	1	100·0
1921	12	0·13	1*	0·01	8·3	10†	83·3

Figures given in this Table refer to notifications received without reference to corrected diagnosis, but are exclusive of military cases.

*Excludes death of a nurse at the Isolation Hospital, which is shown in Table 17.

†Includes four at General Hospital.

TABLE 13. NORTHAMPTON, 1912—1921.
DIPHTHERIA.

Year.	Notifica- tions.	Attack Rates per 1,000.	Deaths.	Death- rates.	Fatality.	Numbers removed to Hospital.	Removal rates per cent.
1912	63	0·70	12	0·13	19·0	42	66·7
1913	119	1·31	27	0·30	22·7	71	59·7
1914	236	2·59	37	0·41	15·7	124	52·5
1915	309	3·42	43	0·47	13·9	142	45·9
1916	136	1·58	16	0·20	11·8	102	75·0
1917	95	1·10	19	0·23	20·0	68	71·6
1918	74	0·90	13	0·16	17·6	53	71·6
1919	99	1·11	10	0·11	10·1	77	77·7
1920	202	2·18	9	0·10	4·4	144	71·3
1921	217	2·35	9	0·10	4·1	142*	65·4

Figures given in this Table refer to notifications received without reference to corrected diagnosis, but are exclusive of military cases.

*Includes five to General Hospital.

TABLE 14. NORTHAMPTON, 1921.

DIPHTHERIA. DISTRIBUTION OF NOTIFIED AND PRESUMABLY GENUINE CIVIL CASES THROUGHOUT THE MUNICIPAL WARDS.

	Abington	Castle	Delapre	Kingsley	Kingsthorpe	North	St. Crispin's	St. Edmund's	St. James'	St. Lawrence	St. Michael's	South	Total
Notified Cases	19	18	5	17	23	21	22	13	9	25	31	14	217
Presumably Genuine Cases	19	17	5	17	23	19	22	13	9	23	30	11	208

TABLE 15. NORTHAMPTON, 1921.

DIPHThERIA. GENUINE NORTHAMPTON CIVIL CASES. AGE AND SEX DISTRIBUTION.

	Un- der 1	1 to 2	2 to 3	3 to 4	4 to 5	Total under 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and over	Total
Males ...	1	8	5	4	11	29	62	9	6	...	...	106
Females	...	2	4	5	9	20	55	18	8	1	...	102
Total ...	1	10	9	9	20	49	117	27	14	1	...	208

TABLE 16. NORTHAMPTON, 1921.

BOROUGH HOSPITAL, HARBOROUGH ROAD. CASES OF COMMUNICABLE DISEASE UNDER TREATMENT DURING THE YEAR.

	Scarlat- ina.	Diph- theria.	Typhoid Fever.	Other.	Total.
No. remaining from 1920 ...	8	20	—	—	28
No. admitted during 1921 ...	89	140†	7	1*	237
No. discharged during 1921 ...	66	125†	5	1*	197
No. died during 1921 ...	1	4	2‡	—	7
No. remaining at end of 1921 ...	30	31	—	—	61

*One military case of measles.

†Includes one military case.

‡See footnote to Table 12.

TABLE 17. NORTHAMPTON, 1921.
TUBERCULOSIS DEATHS. SHOWING THE PERIOD ELAPSING BETWEEN
NOTIFICATION AND DEATH.

PERIOD BETWEEN NOTIFICATION AND DEATH.	M.	F.	TOTAL.
(1) PULMONARY TUBERCULOSIS :—			
Not notified	5	1	6
One month	8	7	15
1—6 months	11	9	20
6—12 months	6	5	11
12—18 months	5	2	7
18—24 months	4	7	11
24—36 months	6	2	8
3 years and over	15	5	20
Total	60	38	98
(2) TUBERCULOSIS OTHER THAN PULMONARY :—			
Not notified	6	2	8
Notified after death	1	—	1
One month	2	1	3
1—6 months	—	—	—
6—12 months	2	—	2
12—18 months	—	—	—
18—24 months	1	—	1
24—36 months	—	—	—
3 years and over	—	1	1
Total	12	4	16

TABLE 18. NORTHAMPTON, 1921.

CLINICAL BACTERIOLOGY. NUMBER OF SUSPECTED CASES IN WHICH EXAMINATION WAS MADE AND THE NUMBER AND NATURE OF THE REPORTS RECEIVED IN CONNECTION WITH THESE.

DIPHTHERIA— Throat and Nose Secretions.	TYPHOID AND PARATYPHOID FEVERS— Widal's Tests, etc.			TUBERCULOSIS— Sputum, Urine, etc.			OTHER CONDITIONS.			TOTAL.										
	Reports received.		No. of Suspected Cases	Reports received.		No. of Suspected Cases	Reports received.		No. of Suspected Cases	Reports received.		No. of Suspected Cases								
Positive	Negative	Total		Positive	Negative		Total	Positive		Negative	Total									
474	613	1016	1629	10	8	7	15	369	157	287	444	14	3	12	15	867	781	1322	2103	
	Total			Total			Total			Total			Total			Total			Total	

TABLE 19. NORTHAMPTON, 1921. METEOROLOGICAL DATA.

MONTH.	RAINFALL.				TEMPERATURE.						DIRECTION OF WIND.					Quarters.
	Total inches.	Greatest in 24 hours.		Days in which 0.01 in. or more fell.	Mean.	Maximum.		Minimum.		No. of Nights at or below 32 deg.	S. W. Quadrant including W. Days.	S. E. Quadrant including S. Days.	N. E. Quadrant including E. Days.	N. W. Quadrant including N. Days.		
		Depth.	Date.			Deg.	Date.	Deg.	Date.							
January ...	2.11	0.44	7	17	45.69	56.9	9	28.5	15	3	23	3	...	5	First.	
February	0.34	0.23	25	7	40.88	59.5	24	27.1	2	9	7	8	6	7		
March	0.75	0.17	19	18	43.60	64.2	24	31.0	3	3	20	4	1	6		
April	1.04	0.25	13	11	49.15	73.5	30	29.2	16	2	9	2	13	6	Second.	
May	1.33	0.39	8	15	54.32	79.1	25	32.7	5	...	15	3	9	4		
June	0.35	0.17	3	6	59.98	88.4	25	41.5	{ 20 28	...	1	6	12	11		
July	0.44	0.15	29	6	67.96	92.0	10	43.2	1	...	8	7	3	13	Third.	
August ...	1.75	0.28	7	18	61.74	80.6	18	40.4	31	...	13	2	6	10		
September	1.07	0.69	11	5	59.33	85.3	8	35.3	28	...	11	3	6	10		
October ...	1.10	0.39	3	10	55.30	80.8	6	33.1	24	...	12	7	1	11	Fourth.	
November	1.74	0.53	2	13	39.76	56.2	4	24.6	11	14	6	9	9	6		
December	1.22	0.20	26	18	43.38	55.1	17	28.7	5	8	20	2	3	6		
Year 1921	13.24	0.69	Sep. 11	144	51.67	92.0	July 10	24.6	Nov 11	39	145	56	69	95		

TABLE 20. NORTHAMPTON, 1921.

NUMBER OF ARTICLES DISINFECTED BY STEAM AT DISINFECTING STATION
EACH MONTH.

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
747	612	604	793	461	339	397	514	356	610	729	901	7063

TABLE 21. NORTHAMPTON, 1921.

HOUSING, TOWN PLANNING, &C. ACT, 1909. HOUSES REPRESENTED BY
THE MEDICAL OFFICER OF HEALTH DURING THE YEAR. SUBSEQUENT
ACTION AND CONDITION AT THE END OF THE YEAR.

HOUSES.	DATE OF			REMARKS.
	Representa- tion	Closing Orders.	Demolition Orders.	
Bath Row, 12, 14, & 16	26-1-21	4-4-21	—	Unoccupied.
Bridge Street, Dickens' Terrace, 6, 7, 8, & 9	26-1-21	—	—	Dealt with under Public Health Acts.
Bridge Street, Dickens' Yard, 1 & 2	26-1-21	—	—	Dealt with under Public Health Acts.
Bridge Street, May- cock's Row, 1, 2, 3, 4, 5, 6, 7, 8, 9, & 10	26-1-21	—	—	Dealt with under Public Health Acts.
Chalk Lane, 22, 23, 24, & 25	21-9-21	—	—	Consideration of Closing Orders postponed. Inhabited.
Manor Road, 9, 9a, & 9b	23-2-21	4-4-21	—	Operation of Closing Orders postponed. 9a unoccupied only.
Riding, 9	26-1-21	4-4-21	—	Gutted and turned into store.

TABLE A. (L.G.B. TABLE I.)

COUNTY BOROUGH OF NORTHAMPTON.

Vital Statistics during 1921 and previous Years.

Year.	Popula- tion esti- mated to Middle of each Year.	Births.			Total Deaths registered in the District.		Transferable Deaths.		Nett Deaths belonging to the District.			
		Un- corrected Number.	Nett.		Number.	Rate.	Non- residents registered in the District.	Resi- dents not registered in the District.	Under 1 Year of Age		At all Ages.	
			Number.	Rate.					Number.	Rate per 1000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1916	86128	1883	1893	20.2	1206	14.0	116	58	127	67.1	1148	13.3
1917	82471	1466	1471	16.0	1217	14.7	128	86	128	87.0	1175	14.2
1918	81113	1316	1313	14.4	1426	17.6	122	81	121	92.2	1385	17.1
1919	88944	1432	1411	15.3	1301	14.6	137	54	116	82.2	1218	13.7
1920	92488	2318	2248	24.2	1137	12.3	130	40	166	73.8	1047	11.3
1921	92300	1924	1881	20.4	1022	11.1	123	65	124	65.9	964	10.4

This Table is arranged to show the gross births and deaths in the district and the births and deaths properly belonging to it with the corresponding rates.

In Column 6 are included the whole of the deaths registered during the year as having actually occurred within the district, but excluding the deaths of soldiers and sailors that have occurred in Hospitals and Institutions in the district. Such deaths are as follows:—

YEAR.	NO. OF DEATHS.
1916	33
1917	13
1918	69
1919	9
1920	1
1921	0

Area of District in acres (land and inland water)	...	...	3,469
Total Population at all ages	...	...	90,064
Total families or separate occupiers	...	...	19,650
			} At Census 1911.

(Figures given in Census special volume for the County, also in Vol. I., VI. and VIII. of the reports of the Census of England and Wales)

TABLE B. (L.G.B. TABLE II.)

COUNTY BOROUGH OF NORTHAMPTON.

Cases of Infectious Diseases notified during the Year 1921.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								TOTAL CASES NOTIFIED IN EACH WARD.											Total Cases removed to Borough Hospitals		
	At all Ages.	At Ages—Years.							Abington	Castle	Delapre	Kingsley	Kingsthorpe	North	St. Crispin's	St. Edmund's	St. James'	St. Lawrence's	St. Michael's		South	
		under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and up- wards														
Smallpox
Cholera
Plague
Diphtheria	217	1	49	122	29	15	1	...	19	18	5	17	23	21	22	13	9	25	31	14	137	
Erysipelas	48	1	...	5	7	11	16	8	3	9	1	2	...	3	4	8	6	7	1	4	...	
Scarlatina	118	2	26	76	6	8	...	...	3	12	1	4	7	8	9	26	19	6	15	8	89
Typhus Fever
Typhoid Fever	12	...	1	4	5	2	...	...	...	1	...	1	...	6	...	...	...	...	...	4	6
Relapsing Fever
Continued Fever
Puerperal Fever	10	...	...	...	5	5	...	...	...	1	...	1	1	2	...	2	...	...	1	2	...
Cerebro-spinal Fever ...	2	1	1	1	1
Acute Poliomyelitis
Ophthalmia Neonatorum	28	28	10	3	2	...	2	1	1	2	3	2	2
Pulmonary Tuberculosis	148	...	...	15	44	62	25	2	11	24	4	3	5	14	8	12	16	16	24	11	42
Other Forms of Tuberculosis	21	2	1	10	5	3	...	...	1	3	1	1	...	5	1	1	2	3	...	3	2
Pneumonia	136	10	41	19	10	32	19	5	4	42	7	9	7	11	12	6	16	10	3	9	...	
Encephalitis Lethargica	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Polio-encephalitis	2	...	1	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...
Dysentery
Malaria (contracted abroad)	1	1	1
Totals	744	44	119	251	112	142	61	15	41	121	22	40	44	72	58	69	70	71	77	59	276	

The above figures are exclusive of cases notified amongst the Military, but take no account of corrections in diagnosis.

Isolation Hospitals—(1) Harborough Road (Infectious Diseases); (2) Welford Road (Tuberculosis); (3) Near Hardingstone (Smallpox).

Total Available Beds—about 120. Sanatorium—County Sanatorium, Creaton, Northamptonshire—60 Beds (20 for Northampton County Borough).

TABLE C. (L.G.B. TABLE III.)

COUNTY BOROUGH OF NORTHAMPTON.

Causes of and Ages at Death during the Year 1921.

CAUSES OF DEATH.					NETT DEATHS AT THE SUBJOINED AGES OF " RESIDENTS " WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.										Total Deaths whether of Residents or Non- Residents in Institutions in the District
					ALL AGES	Under 1 year	1 and under 2 years	2 and under 5 years	5 and under 15 years	15 and under 25 years	25 and under 45 years	45 and under 65 years	65 and up- wards		
ALL CAUSES	(Certified Uncertified	...	...	...	956 8	123 1	15 ...	19 ...	33 ...	52 ...	135 1	212 ...	367 6	281 1
1. Enteric Fever	...	...	...	...	1	...	...	...	...	1	...	...	...	1
2. Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Measles	...	...	...	...	1	...	1	...	...	...	...	...	...	...
4. Scarlet Fever	...	...	...	...	1	...	...	1	...	...	...	...	...	...
5. Whooping Cough	...	...	...	...	4	2	1	...	1	...	...	...	...	...
6. Diphtheria	...	...	...	...	9	1	1	3	4	...	...	...	...	...
7. Influenza	...	...	...	...	7	...	...	...	...	...	...	...	...	2
8. Erysipelas	...	...	...	...	5	...	...	1	...	1	3	3	1	1
9. Phthisis (Pulmonary Tuberculosis)	...	...	...	...	98	...	...	1	1	19	52	22	1	3
10. Tuberculous Meningitis	...	...	...	...	10	1	...	2	5	2	...	...	3	9
11. Other Tuberculous Diseases	...	...	...	...	6	...	...	...	1	2	2	...	1	6
12. Cancer, Malignant Disease	...	...	...	...	104	...	...	1	...	...	12	47	44	9
13. Rheumatic Fever	...	...	...	...	3	...	...	...	1	2	...	...	...	46
14. Meningitis	...	...	...	...	4	1	...	...	1	2	...	...	...	1
15. Organic Heart Disease	...	...	...	...	116	...	...	3	3	7	14	31	58	2
16. Bronchitis	...	...	...	...	71	8	3	...	1	...	4	13	42	18
17. Pneumonia (all forms)	...	...	...	...	58	11	4	5	2	2	10	17	7	11
18. Other Diseases of Respiratory Organs	...	...	...	...	8	...	...	...	...	...	1	4	3	2
19. Diarrhoea and Enteritis	...	...	...	...	16	15	1	...	...	...	...	...	...	...
20. Appendicitis and Typhlitis	...	...	...	...	4	...	...	...	...	1	1	2	...	8
21. Cirrhosis of Liver	...	...	...	...	8	...	...	...	...	...	1	5	2	2
21a. Alcoholism	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22. Nephritis and Bright's Disease	...	...	...	...	19	...	...	...	1	...	6	6	6	4
23. Puerperal Fever	...	...	...	...	3	...	...	...	...	1	2	...	...	2
24. Other Accidents and Diseases of Preg- nancy and Parturition	...	...	...	...	3	...	...	...	...	1	2	...	...	1
25. Congenital Debility and Malformation, including Premature Birth	...	...	...	...	70	67	2	...	1	...	...	...	...	6
26. Violent Deaths, excluding Suicide	...	...	...	...	20	4	1	...	2	5	1	3	4	16
27. Suicide	...	...	...	...	10	...	...	...	...	...	4	3	3	3
28. Other Defined Diseases	...	...	...	...	303	14	1	2	9	6	19	55	197	117
29. Diseases ill-defined or unknown	...	...	...	...	2	...	...	...	...	...	...	1	1	1
TOTALS					964	124	15	19	33	52	136	212	373	282	
Sub- entries included in above figures.	8 (a) Polio-encephalitis	...	...	...	2	...	...	1	...	...	1	...	...	...
	(b) Cerebro-spinal Meningitis	...	...	...	2	...	...	...	...	1	1	...	...	2
	17 (a) Broncho-pneumonia	...	...	...	21	8	2	2	1	1	2	4	1	4
	28 (a) Senile Decay	...	...	...	106	...	...	...	...	...	...	2	104	25
	(b) Apoplexy	...	...	...	70	...	...	...	...	...	1	17	52	19



TABLE D. (L.G.B. TABLE IV.)

COUNTY BOROUGH OF NORTHAMPTON.

INFANT MORTALITY DURING THE YEAR 1921.

Nett Deaths from stated Causes at various Ages under One Year of Age.

CAUSES OF DEATH.						Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 4 weeks	4 weeks and under 3 months	3 months and under 6 months	6 months and under 9 months	9 months and under 12 months	Total Deaths under 1 year
ALL CAUSES	{ Certified	...	...	...	...	36	13	10	8	67	13	14	17	12	123
	{ Uncertified	...	...	...	...	1	...	...	...	1	...	...	...	...	1
{ Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Chickenpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2
{ Diphtheria	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
{ Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
{ Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Meningitis (<i>not Tuberculous</i>)	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
{ Convulsions	...	...	...	...	...	2	...	1	1	4	2	...	...	...	6
{ Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Bronchitis	...	...	...	...	...	...	...	...	1	1	1	...	...	2	8
{ Pneumonia (all forms)	...	...	...	...	...	...	...	1	...	1	...	2	4	4	11
{ Diarrhoea	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
{ Enteritis	...	...	...	...	...	...	...	1	...	1	4	4	3	2	14
{ Gastritis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Syphilis	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
{ Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	1	...	1	...	2
{ Injury at Birth	...	...	...	...	...	2	...	...	...	2	...	...	...	...	2
{ Atelectasis	...	...	...	...	...	4	...	...	...	4	...	...	...	...	4
{ Congenital Malformations	...	...	...	...	...	4	1	...	1	6	...	...	...	...	6
{ Premature Birth	...	...	...	...	...	21	2	5	4	32	3	2	...	...	37
{ Atrophy, Debility and Marasmus	...	...	...	...	...	4	9	2	...	15	2	3	1	2	23
{ Other Causes	...	...	...	...	...	...	1	...	1	2	...	1	...	1	4
Totals	...	...	...	...	...	37	13	10	8	68	13	14	17	12	124

Nett Births { legitimate ... 1,801

Registered { illegitimate ... 80

Total 1,881

Nett Deaths { legitimate infants ... 116

Registered { illegitimate infants ... 8

Total 124

TABLE F. NORTHAMPTON, 1921.

REPORT ON THE

Administration of the FACTORY & WORKSHOP ACT, 1901, in connection with

Factories, Workshops, Workplaces and Homework.

1.—INSPECTION.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
FACTORIES (Including Factory Laundries)	8	7	1
WORKSHOPS (Including Workshop Laundries and Bakehouses)	312	61	...
WORKPLACES (Other than Outworkers' Premises)	10	...	...
OUTWORKERS' PREMISES	70	2	...
Total	400	70	1

2.—DEFECTS FOUND.

Particulars. (1)	Number of Defects.			Number of Prosecu- tions. (5)
	Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	
<i>Nuisances under the Public Health Acts :—*</i>				
Want of Cleanliness.....	12	12	...	...
Want of Ventilation	1	1	...	...
Overcrowding	1	1	...	...
Want of Drainage of Floors .....	...	...	...	...
Other Nuisances	1	1	...	...
Sanitary Accommodation	insufficient	6	6	...
	unsuitable or defective ...	2	2	...
	not separate for sexes.....	...	...	...
<i>Offences under the Factory and Workshop Acts :—</i>				
Illegal occupation of underground bakehouse (s. 101)	...	...	...	...
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	47	47	...	...
Other Offences .....	...	...	...	...
(Excluding offences relating to outwork which are included in Part 3 of this Report)				
Total	70	70	...	...

*Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

3.—HOMEWORK.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.									OUTWORK IN UNWHOLE-SOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
	Lists received from Employers.						Notices served on Occupiers as to keeping or sending lists. (8)	Prosecutions.		Instances. (11)	Notices served. (12)	Prosecutions. (13)	Instances. (14)	Orders made (S. 110). (15)	Prosecutions (Sections 109, 110). (16)
	Sending twice in a year.			Sending once in the year.				Failing to keep or permit inspection of lists. (9)	Failing to send lists. (10)						
	Lists. (2)	Outworkers.		Lists. (5)	Outworkers.										
		Con-tractors. (3)	Work-men. (4)		Con-tractors. (6)	Work-men. (7)									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
WEARING APPAREL :— (1) Making, etc.	8	...	22	8	...	36	...	...	...	...	...	...	3	3	...
Furniture and Upholstery	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...

There are no Outworkers in any of the other trades usually shown in the above table.

4.—REGISTERED WORKSHOPS.

4.—REGISTERED WORKSHOPS.		5.—OTHER MATTERS.	
Workshops on the Register (s. 131) at the end of the year. (1)	Number. (2)	Class. (1)	Number. (2)
Number of Workshops (including Bakehouses).....	294	MATTERS NOTIFIED TO H.M. INSPECTOR OF FACTORIES :—	
Number of Outworkers' Premises on Register.....	214	Failure to affix abstract of Factory and Workshop Act (s. 133)	2
		Action taken in matters referred by H. M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5) {	
		Notified by H.M. Inspector	4
		Reports (of action taken) sent to H.M. Inspector	4
		Other .....	...
		Underground Bakehouses (s. 101) in use at the end of the year	1
TOTAL Number of Workshops on Register.....	508		

